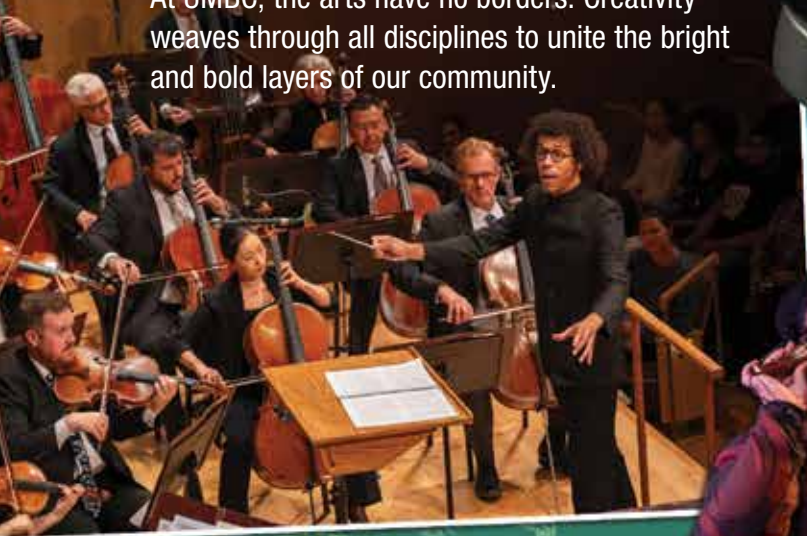
Fall 2025

UMBC MAGAZINE

ARTS+YOU

At UMBC, the arts have no borders. Creativity weaves through all disciplines to unite the bright and bold layers of our community.



42

Strange Dance Partners

Could a dancing robot improve humans' mental health? This UMBC computer science lab is turning to dance as an inspiration for their robotics research.

By Catherine Meyers, Photo by Kiirstn Pagan '11

TABLE OF **CONTENTS**

12
Fine Arts Gets a Facelift

Thanks to UMBC's Arts+ initiative, the Retriever-led Cheeky Magpie Collective transformed the Fine Arts Building with a public art installation.

By Tanzila Malik '26

22
Renaissance Retrievers

At UMBC, students, faculty, and staff blend disciplines into a symphony of diverse talents, and their stories reveal a community where interdisciplinary curiosity isn't an exception but rather the engine of innovation.

By Sarah L. Hansen, M.S. '15

28
Building the Fourth Wall

Theatre magic is not magic at all. As these student production assistants and their mentors can tell you, it is the product of extreme organization, hefty technical skills, and commitment to show up and do the work.

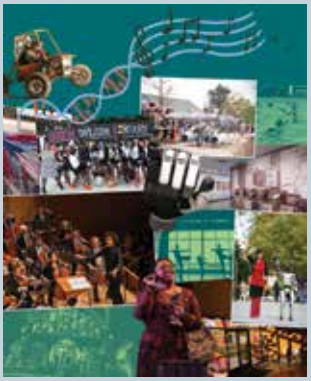
By Catalina Sofia Dansberger Duque

36
Submersive, Subversive Art

Charm City is proudly home to some quirky art. And if you take a splash in the wacky waters, you'll find Retrievers all the way down.

By Janelle Erlichman Diamond

DEPARTMENTS



ON THE COVER

We wanted to showcase the layers of artistic communities at UMBC—some expected and some in unanticipated areas. However, together, they show the rich story of Arts+ at UMBC.

Visit *UMBC Magazine* online year-round at magazine.umbc.edu for plenty of web extras! Thoughts, complaints, or suggestions about *UMBC Magazine*? Get in touch at magazine@umbc.edu.

TO **YOU**

Dear Fellow Retrievers,

It's a daunting task to introduce myself to so many people at once—so I'll sum it up by saying: I'm one of you! I grew into myself while a student at UMBC, and in 2019, when a position opened for *UMBC Magazine*, I jumped on it. Since then, I've had the opportunity to write about so many of my favorite topics within these pages: empathy, hospitality, Retriever love stories, and aliens (seriously!).

I'm grateful that UMBC is a place that invites us to bring our whole selves (sci-fi obsessions included). This fall, at the 2025 UMBC Alumni Awards ceremony, I heard the recipients share a similar theme again and again—that UMBC was a place where they felt seen and heard and where they were given room to grow and try new things.

Sometimes that means embracing our quirky sides, glitter on our face, and jumping into the deep end of the pool, like the many Retrievers who found a home in Fluid Movement's water ballets in Baltimore City pools (page 36). Maybe for you, that means celebrating interdisciplinary curiosity and drawing on seemingly disconnected areas of study because you see the multifaceted makeup of the world (page 22); or leaning into the unexpected—like the computer science lab that turned to a unique training source for its robots: classical Indian dance (page 42). And who isn't eager for the behind-the-scenes look at what makes theatre magic? Spoiler alert: It isn't magic at all but a massive amount of dedication and hard work for a meaningful end result (page 28).

As UMBC continues to grow, the campus is also trying something new this year—an initiative called Arts+. The aim is to unite and uplift our myriad arts programming under one umbrella and create new avenues for student and alumni showcases. You'll see some of that displayed in President Valerie Sheares Ashby's conversation with current human-centered computing master's student Petra Janka '25 (page 3); in the Cheeky Magpie Collective's Fine Arts makeover (page 12), and many other places in this Arts+-themed issue.

I am truly honored to present these stories to you. I hope you'll see yourself reflected in many of them and that you will consider joining us for one of many Arts+ events planned for next year.

— Randianne Leyshon '09
Editor, UMBC Magazine

WEB **FEATURES**

See web-only videos, interviews, and more all year long at **magazine.umbc.edu**.

Meet UMBC's six Fulbright U.S. Student Program recipients this year

Homecoming 2025: Bonfires, carnivals, and puppies—oh my!

HARP2: 500 days in space and counting

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For more information on the Alumni Association, visit **alumni.umbc.edu**. To learn about giving, visit **giving.umbc.edu**.

OFFICE **HOURS**

"You are a valued and important voice." "UMBC cares and listens." "The diversity on UMBC's campus helps to bring out the best in everyone." Along with an eye-catching color gradient, these words adorn the walls of the Mezzanine Gallery in The Commons. And while the phrases may sound like something President ***Valerie Sheares Ashby*** *would (and does) say quite often, they are actually part of an Arts+-funded, student-sourced art installation that asked students: "Inclusive excellence: What does it mean to you?"*

Created by students in the spring 2025 class Professional Practices in Graphic Design, the installation transforms the Mezzanine Gallery and nearby breezeway into spaces that reflect UMBC's welcoming community. Among the students involved in the design was ***Petra Janka*** *'25, graphic design and modern languages and linguistics, and a current human-centered computing master's student. In this Q&A, Janka and President Sheares Ashby talk about student-led inclusive excellence and the ways that UMBC welcomes people into its community.*

President Valerie Sheares Ashby: How did your class approach this project?

Petra Janka: Our class was asked to help to reimagine and transform two spaces in The Commons: The Mezzanine Gallery and the entrance near the breezeway. We wanted students to interact with something enjoyable and inspirational. So our design approach focused on creating a multi-perspective experience.

There are three specific views you can take in this installation. From one side, you see this colorful gradient representing the diversity of residential life on campus. From the other angle, you can see the black and gold gradient symbolizing academic life at the university. If you look at it straight on, you can see the quotes included in the installation and the digital signage, which highlights additional answers. We sourced these quotes by surveying students about their connections, their advice, their challenges, their experiences on campus, and so on.

Sheares Ashby: This is fantastic. It is a brilliant idea on multiple levels. I talk about inclusive excellence all the time because it is a core value of the institution, but hearing students' experience lets me know we are doing something right. It also lets me know there is more for us to do, right? These quotes inspire me to keep going—to try to make the place even more inclusive for everyone.

It is one thing for me to say it, but to know that your student peer is saying—"Give everyone a chance"—well, that is far more powerful than if I were using my voice. When I read the quotes on the wall, I think, "Oh, that is different. That is more powerful. That is more meaningful."

Janka: The motto of our group was: "From the students, for the students."

We wanted everyone who passes by to stop, read, and feel seen, heard, and valued, and I think we achieved that.

Sheares Ashby: This is a unique institution. It is a very different thing to be at an institution that has been around for more than 150 years, and one that has been around for 59. Older institutions are pretty hard to change. Students certainly have an impact everywhere they go, but you are not creating that institution anymore, not fundamentally changing the DNA.

But, here, we are still in a space where we are becoming clear about our values, but we are flexible and humble enough to recognize there is still more input to receive, still more growth to experience, still new ideas to include. We can be better and different, and it is our clarity about our core principle of inclusive excellence that enables us to do that.

Janka: Last spring, when we were scouting out the space, we saw how many people pass through because this is a place to eat, study, and meet friends. We wanted to add something that becomes part of that everyday experience at UMBC. And now the colors draw your eyes to it, and then you read the messages, and you feel connected, and you're like, "Oh, this is nice. I feel inspired to do better, to give everyone a chance." I hope it stays up for a long time.

Sheares Ashby: We are clearly better because you are here. This is what students do. Each time a new student joins us, UMBC gets better.

Petra Janka and President Valerie Sheares Ashby visit the Inclusive Excellence installation at the Mezzanine Gallery.

DAWG'S EYE **VIEW**

IT'S ELECTRIC

They say lightning doesn't strike twice, and we're grateful for that because this was close enough! A UMBC transit dispatcher had eagle eyes on the skies and captured a moment of Mother Nature's wrath during one of Baltimore's many summer storms.

@UMBCtransit

DO NOT PASS GO

It's been a spicy few months for James Beard semifinalist **Steve Chu** '12, economics, co-owner of Baltimore's wildly popular (and wildly delicious) Ekiben restaurant. He was nominated for an Emmy for his hosting work on Maryland Public Television's *Farm to Skillet*, came in at number four on Yelp's "Top 50 Fried Chicken Spots" in the United States and Canada, AND cemented Ekiben's place in our hearts and likely many family arguments with a spot on the new Baltimore edition of Monopoly.

@EkibenBaltimore

THE SWEETEST PARTNERSHIP

I scream, you scream, we all scream for this cool collab between radio personality and professor **Kaye Whitehead**, Ph.D. '09, language, literacy, and culture, and Taharka Brothers Ice Cream. "Dr. Kaye's Taste of Freedom" is a multi-layered sweet treat that aims to bring flavors—and people—together.

@BlackMommyActivist

TASTE OF MARYLAND

Duff Goldman '97, history, brought a whole new meaning to "crab cake" when he and his team created this Super Mega Cake for Food Network as an homage to all things Maryland. And as further proof Marylanders can find a way to put Old Bay on everything, there's even some of the state's signature seasoning sprinkled on this sweet treat.

@Duff Goldman

ORANGE YOU IN LOVE WITH THESE PUMPKINS?

Oh my gourd! Fraternities and sororities at UMBC gathered in October to showcase all the ways they're falling in love with fall at a monthly social. Members of Greek life put their art skills to work, painting pumpkins and connecting across councils.

@UMBCgreek

HAY IS FOR HORSES (AND WHATEVER OTHER ANIMAL NEEDS IT!)

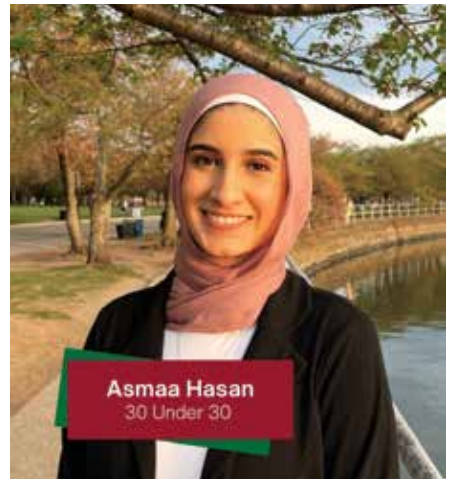
After Retrievers were done enjoying admiring the hay bales that have become synonymous with October Homecoming decor, UMBC's Office of Sustainability gave a second life to the prop pieces, working with a local farm that does exactly the same with their animals. Approximately 40 bales of hay went to a farm that rescues animals from Baltimore County Animal Control and allows them to live on the land.

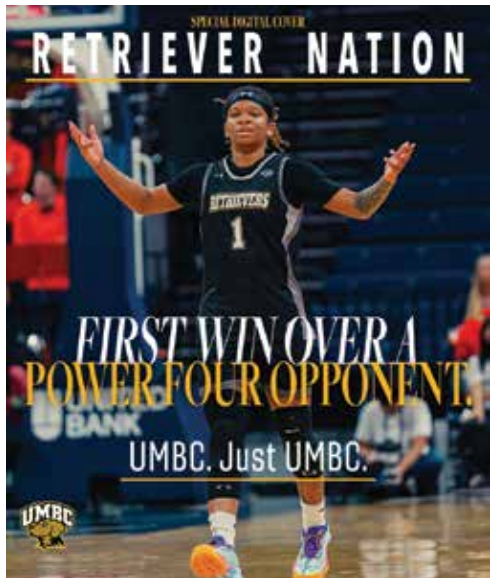
@SustainableUMBC

LIFE SAVER

Asmaa Hasan '22, chemical engineering, was named one of Arab America Foundation's 30 Under 30 for 2025. Her work at AstraZeneca supports the delivery of life-saving medicines. The Arab America Foundation shares that she "has held leadership roles in national engineering and professional organizations, where she champions mentorship, outreach, and inclusive programming to uplift underrepresented communities."

@Arab_America





SWISH LIKE THAT

UMBC is updating the record books again with a 61-56 win from women's basketball to defeat University of Virginia, marking the first win against a Power Four opponent in program history.

UMBCathletics

WHAT'S YOUR VIEW?

Share your Retriever perspective on social media using the hashtag #UMBC, and your image could be included in a future issue of *UMBC Magazine*!

THE NEWS

Sherman Hall's Phase 1 Renovation Complete

The west wing of George and Betsy Sherman Hall is open to students and staff again after 18 months undergoing extensive renovations and modernizations. While the renovation on the building's east wing (adjacent to Academic Row) begins in earnest this semester, west wing residents are settling into their colorful and versatile office setups and classroom spaces.

Walking into the Sherman Hall atrium, a floating staircase dominates the entryway, but if you take a right and a left and walk past a few brightly colored sitting areas, you'll find the new offices of Academic Transition Programs. It's not just the offices of ATP, it's also home to the Individualized Study Program major and University Innovation Alliance as well.

With this exciting new phase for campus comes disruptions to some normal operations. **Laila Shishineh**, a new resident in Sherman Hall's office suites, and the assistant vice provost and assistant dean for Academic Transition Programs, understands the disruption better than most. Shishineh and her team were relocated two years ago because of the renovations, split up across campus, sharing office spaces as needed. Now as they settle into their new office space—shared with two offices who await their new space in the east wing—Shishineh celebrates the infrastructural improvements and also the new opportunities for collaboration that weren't possible before.

Under a plan Shishineh developed alongside Facilities Management, ATP, University Innovation Alliance, and Individualized Study Program will share the new suite space in Sherman Hall west wing, with hoteling space available for days when employees overlap. This collaboration of 17 people allows flexibility for people to work in-office some days and work from home other days.

This physical proximity to other departments allows for unique opportunities of collaboration between them. "It's so nice to have a suite space," says Shishineh. "People get to build new relationships and support each other in different ways as opposed to just being 'doors in a hallway' somewhere on campus."

Improvements have also been made to make wayfinding easier in Sherman Hall, since the two wings make some things difficult to find. New signage, room numbering, general space layouts, and color-coding help everyone more easily find their way to the other occupied offices in the west wing, including the George and Betsy Sherman Center, which is home to the umbrella of programs that help prepare teachers in urban schools that will transform lives in the communities they serve.

An exciting feature to look forward to is the courtyard between the west and east wings of Sherman Hall. This multi-tiered green space with new ramps and stairs will provide gathering places and outdoor classroom opportunities at each level when the entire renovation is complete.

At the beginning of the project, UMBC evaluated tearing down Sherman Hall and rebuilding it versus a significant renovation. It was determined that the structure was still very solid and the cost of a new structure could be as much as 40 percent of the cost of a building, says **Stacy Brian**, the Facilities Management project manager for the renovation.

Besides the bottom-line cost, there were more considerations for taking on the renovation. Believe it or not, but "tearing this building down completely in the heart of campus would also have been much more disruptive than what we are experiencing now," says Brian.

"This project has been a shining example of how all of the different departments from many different UMBC divisions can come together and accomplish a very difficult task," says **John Zahor**, assistant vice president for Facilities Management.

"We hope to be done by the beginning of the 2027 spring semester to give this wonderful building back to the campus community without fences and temporary signs, ready for full use," says Zahor.

— Tanzila Malik '26

Jess Wyatt, associate director of alumni engagement, speaks to a crowd of faculty and staff in the Sherman Hall atrium, a newly-created space opened during Phase 1 of the renovations.

Celebrating Extraordinary Alumni

This year, the Alumni Association Board of Directors recognized nine remarkable Retrievers whose lives and work embody the very best of UMBC. Their accomplishments remind us that a UMBC education results in a lifelong. journey of learning, leading, and inspiring others.

2025 Alumni Award Winners

Distinguished Service Award

Mark Benesch '08, chemical engineering (read more on page 20)
Capital Portfolio Director, Americas, AstraZeneca

Outstanding Alumni of the Year

Emily Brown '14, M.S. '14, computer science (read more on page 61)
Assistant Group Supervisor, Johns Hopkins University Applied Physics Laboratory

Erwin Cabrera '10, biological sciences (read more on page 55)
Executive Director, Stony Brook Simons STEM Scholars Program

John Olszewski, Jr., Ph.D. '17, public policy
U.S. Representative, 2nd Congressional District, U.S. House of Representatives

Cameron Slayden '99, interdisciplinary studies (read more on page 59)
Co-Founder, CEO & Creative Director, Microverse Studios

Jacqueline Smith '06, chemistry
Associate Professor of Chemistry, Howard University

Rising Star

Courtney Culp '20, visual arts (read more on page 11)
Print Designer, Warner Brothers Discovery

Outstanding Staff

Michael Hunt '06, applied mathematics, Ph.D. '25, language, literacy, and culture
Director of the McNair Scholars Program

Outstanding Faculty

Jamie Gurganus '04, M.S. '11, Ph.D. '20, mechanical engineering
Assistant Professor in Engineering and Computing Education

Read more about all the alumni award winners at umbc.edu/alumniprogram.

Retriever Tapped for State Leadership

Maryland Governor **Wes Moore** has appointed **Yaakov "Jake" Weissmann** '06, social work and psychology, as acting secretary of the Maryland Department of Budget and Management (DBM). Weissmann, UMBC's vice president of government relations and community affairs since December 2023, joins an impressive group of UMBC alums serving in state and federal leadership roles.

In a statement on the governor's website, Moore called Weissmann "an experienced public servant and one of the most effective policy minds in our state. His deep understanding of the Maryland budget, developed over years in both the legislative branch and in local government, makes him uniquely qualified to lead DBM."

Weissmann, a proud UMBC alumnus, called the move "exciting but bittersweet." Coming into his role at UMBC from an already full career of public service, he helped spread the word of UMBC's impact among legislators and across the state, and nurtured relationships with the communities surrounding UMBC. He was among President **Valerie Sheares Ashby's** first executive hires.

"It has been an enormous gift to work with Jake and to benefit from his counsel as we have built and strengthened relationships with elected officials and government agencies at the local, state, and federal levels," Sheares Ashby said in a message to campus. "He has positioned us not only to be well-known among our public officials, but also to be well-supported; he believes deeply in UMBC's distinctive value and conveys that value to others in ways that resonate meaningfully and build lasting connections."

Weissmann called Sheares Ashby "a singular leader" who believes deeply in the people and mission of UMBC.

"UMBC really is a special place," he said. "And part of what makes this position work so well is that President Sheares Ashby has a true understanding that our communities matter... and of the importance of making sure UMBC's goals align with the goals of the state."

After graduating from UMBC, Weissmann went on to earn his master's in social work from the University of Maryland, Baltimore, as well as his juris doctor from the University of Baltimore. He served for two years as the assistant chief administrative officer in Montgomery County, where he helped steer the county's economic development strategy and was responsible for several county departments. Prior to that, he spent 14 years with the Maryland General Assembly, including two years working in the House of Delegates and 12 years with the Office of the Senate President. During his time in the Senate, Weissmann served in many roles, including as chief of staff for Senate President Bill Ferguson and former Senate President Thomas V. Mike Miller, Jr. He has also served on the state Board of Elections for the last two years.

Weissmann joins an impressive list of UMBC alumni who occupy prime positions in state and federal government, including **Adrienne Jones** '76, psychology, the first Black woman to serve as speaker of the Maryland House of Delegates; Congressman **Johnny Olszewski**, Ph.D. '17, public policy; and many others.

Looking ahead to the new role, Weissmann said he was excited about the "incredible opportunity to serve" and shared a quote from the late U.S. Representative Elijah Cummings to capture their shared philosophy on the work: "Public service is the rent we pay for our space on this earth."

— Jenny O'Grady

THE NEWS

In Brief

Valuing our Veterans

UMBC moved up 17 places on the *U.S. News & World Report* Best Colleges rankings this year to a tie for #127 among national universities, and up 11 places to a tie for #63 on the list of top public schools. But UMBC was also tied for #86 in top colleges for veterans, evidence that the university's initiatives to support veteran students' success are paying off.

"We are excited to see UMBC's upward trajectory recognized in these rankings," says **Yvette Mozie-Ross** '88, vice provost for enrollment management and planning. "These gains reflect our strong commitment to student success, access, and innovation—hallmarks of a UMBC education that continue to set us apart nationally."

Two years ago, **Dennis Walker, Jr.**, was hired as the assistant director for adult learners and veteran student success. UMBC being recognized by *U.S. News* for its efforts in serving veteran and military-affiliated students is more than just an institutional achievement, he says, but a celebration of the positive impact that new veteran-focused initiatives are having on campus.

"With the support of UMBC leadership, I take great pride in knowing that our collective commitment is helping to ensure that these students feel supported, valued, and equipped to succeed during such a pivotal stage of their personal, academic, and professional journeys," says Walker.

— Catherine Meyers

Living the Mission

UMBC's values and mission are what unite this community of Retrievers together. When we work in service of our students and our academic mission of inclusive excellence, it's hard not to feel connected to the work on another level. The ongoing success of those shared efforts means that UMBC has once again been recognized by ModernThink's Great Colleges to Work For survey report.

This is UMBC's 16th year of recognition and 14th on the Honor Roll—a distinction that goes to the top 10 four-year colleges recognized the greatest number of times in each enrollment size category.

"Our faculty and staff are the best of the best and work to provide an environment where our students can thrive," says **Lynne Adams**, associate vice president and chief human resources officer. "I am so proud of the passion and compassion that our employees continue to show each day. We come together as one with one focus and that is demonstrated in big and small ways throughout campus. It is truly exciting that our university continues to be celebrated as one of the top places to work each year."

— Randianne Leyshon '09

A Resource for Restoration

A dataset unveiled this summer more than doubles the documented stream miles in the Chesapeake Bay Watershed, elevating the total from approximately 150,000 to nearly 350,000 miles. The Hyper-Resolution Hydrography Data used to generate the new stream maps stems from a collaboration between UMBC, the Environmental Protection Agency's Chesapeake Bay Program (CBP), and the Chesapeake Conservancy (CC), including UMBC alumni at CBP and CC.

The project lays a robust foundation for sustainable management of one of North America's most critical ecosystems, which spans six states and supports millions of residents and iconic wildlife, such as blue crabs and migrating shorebirds. The new, high-resolution dataset offers the clearest picture yet of how water moves through both pristine landscapes and altered terrain throughout the watershed.

The novel, artificial-intelligence-supported mapping method the research team used also dramatically reduces costs, time, and labor required for stream mapping, making it easy to update as additional data becomes available or apply in other watersheds to amplify its impact.

"The landscape is shaped by running water. Stream networks are the primary conduit between the watershed and the bay, and now we can characterize that connection in ways that we've never been able to before," says **Matthew Baker**, professor of geography and environmental systems and a lead on the mapping project. The new data will allow individuals and organizations to improve efforts to mitigate any harms from human disruption.

— Sarah L. Hansen, M.S. '15

Rebuilding the Bridge

A year after the massive cargo ship Dali lost power as it left the Port of Baltimore and collided with one of the supports holding up the Francis Scott Key Bridge over the Patapsco River, UMBC students are getting the chance to play a part in rebuilding this vital transportation connection.

Emily DiMarzio, a junior studying environmental science and geography, and **Cristian Mena** and **William McConnell**, both seniors studying mechanical engineering, were all selected to join The Key Bridge Rebuild Internship Program in summer 2025. The internship program launched as a partnership between the Maryland Transportation Authority and the Maryland Higher Education Commission. Nine students from four Maryland universities, including Retrievers DiMarzio, Mena, and McConnell, got hands-on experience in project management, environmental analysis, construction oversight, and community outreach.

"It hurt when the bridge went down," says McConnell, who grew up in Baltimore and now lives with his wife and three kids in Catonsville. "You could practically see it from our neighborhood and now see that it is missing. So when the opportunity came along to apply for this internship, I jumped on it."

— Catherine Meyers

Left to right, Cristian Mena, William McConnell, and Emily DiMarzio pose for a photo near the site of the collapsed Key Bridge. The three students worked on the bridge rebuilding project as interns with the Maryland Transportation Authority.


Port of Baltimore
Dundalk
Seagirt
Broening
Highway

AT **PLAY**

Lighting the Path: Jackie King's Unyielding Vision

In the crisp autumn air, **Jackie King** laces up her running shoes, her white cane—affectionately named Amigo—tucked nearby. The UMBC alumna is training for the New York City Marathon. The effort underscores a life shaped by triumphs and relationships, rather than her gradual loss of sight.

After years of misdiagnosis, in 2017, King finally learned she had retinitis pigmentosa, a rare genetic condition. causing progressive vision loss. Today, King is legally blind—yet she radiates resilience and positivity. "I have chosen this," she says firmly. "I could choose to be like, 'Oh man, this sucks,' every day, all day. But I've chosen not to."

In her early 20s, King built a graphic design business in Baltimore, mixing paints and hand-lettering signs when she could still see clearly. But by age 30, dark flecks were regularly drifting across her field of vision, making night driving and dim spaces like movie theaters challenging.

As her vision faltered, a recurring dream of a college campus spurred her to enroll at Western Maryland College (now McDaniel College) as an art history major, but she shifted to psychology after a professor's nudge. "I fell in love," she recalls. "Studying behaviors and people—it seemed so natural." King arrived at UMBC in 2002 as a Ph.D. student in human services psychology.

King's dissertation evaluated Baltimore's Sisters Circle mentoring program for middle and high school girls, revealing that unstructured, long-term relationships boosted self-esteem and academic drive—and the benefits often extended to mentees' families. Earning her Ph.D. in 2009, King joined UMBC as assistant director of the Minority Access to Research Careers (MARC) program, and today she is the associate director of the Undergraduate Research Training Initiative for Student Enhancement (U-RISE), which replaced MARC. In that role, she applies her research, guiding hundreds of students through graduate school applications and academic and personal challenges.

"I often see so much more in them than they see in themselves," King says. "Seeing their potential is my gift—and then I get to let them in on the secret." Sharing her own struggles with students builds trust, modeling that seeking help is a strength.

Phyllis Robinson, U-RISE director and a professor of biological sciences, praises King as "the linchpin that makes the program run smoothly." Robinson supports King's pursuits on and off the road, admiring her "compassionate and caring approach" amid her vision challenges.

Adapting hasn't been easy for King, though. She hasn't driven in a decade, and reading text on paper is now impossible. Adopting the cane 18 months ago, she admits, was "the hardest hurdle." Yet she reframes her loss: "I would not be as compassionate or empathetic without this journey. It could have been otherwise—but the fact that it isn't? I'm making the best of it."

Running anchored her. At age 45, she trained on UMBC's 1.8-mile loop for her first marathon. She ran the Baltimore race with Team in Training, fundraising for the Leukemia & Lymphoma Society. As running alone grew riskier, she was thrilled when Achilles International, a nonprofit that supports athletes with disabilities, launched a Baltimore chapter in April 2024. Now, 15 to 30 athletes—visually impaired, neurodivergent, amputees, stroke survivors, and more—and their volunteer guides gather each Saturday in Patterson Park to train.

"I came for the challenge; I've stayed for the community," King says. "No one's judging your pace—6 minutes or 17. There's a place for you with Achilles."

After seeing how much the organization has meant to her mom, King's daughter, Demerise King, fundraised for Achilles International as she also trained for the NYC marathon this fall. "I've watched my mom navigate her vision loss for as long as I can remember," she shares. "She's given me a gift by illustrating what it looks like to push past obstacles. Knowing that she is safe while running with the Achilles community gives me a sense of peace."

King's forthcoming memoir reflects her reluctant embrace of her condition. "I did not want to be here, but I am," she says. In King's taper for NYC, she took a spiritual approach to her situation, affirming that "I'm preparing for what's been prepared for me." Prepared she was: On November 2, King crossed the NYC finish line in 5:06:43. Demerise was a few minutes behind her, having raised more than $10,000 for Achilles. As King's vision dims, she runs with an illuminated heart, lighting the path for hundreds of UMBC students and others along the way.

— Sarah L. Hansen, M.S. '15

Jackie King (center) runs with fellow Achilles International participants in the 2025 Charles Street 12-miler in Baltimore. (Image courtesy of King)

Her Star Is Rising

As an artist and an athlete, ***Courtney Culp*** *'20 knew she wanted to find a school that gave her a platform for both her passions. Finding a home in the Linehan Artist Scholars Program while pursuing a visual arts degree and also playing Division 1 soccer gave Culp the balance she was looking for. In her job, she's found the same satisfaction in combining her interests—she works as a graphic designer at Warner Bros. Discovery, creating key art designs for TNT Sports—NBA, NHL, U.S. Soccer, MLB, and more.*

Culp, who received UMBC's 2025 Rising Star award, chatted with fellow Linehan Artist Scholar and University Communications and Marketing intern ***Kayla Logue*** *'27 about balancing athletics and the arts, her experience as a Linehan Artist Scholar, and how her time at UMBC has led her to a dream career.*

Q: How does it feel to win an alumni award just a few years after graduation?

A: It honestly hasn't hit me just yet, but I'm overjoyed with gratitude and am really looking forward to giving back to the community. I want to pour back into the school, back into the campus, and the faculty and students. That's what I'm really looking forward to, especially with the Linehan Scholars mentorship group.

Q: What did you find most valuable about your Linehan Artist Scholar experience?

A: The program's mission statement and framework sparked my interest. I really enjoyed being surrounded by different types of creatives who pushed you to see things from other perspectives and become the best artist you could be.

Q: How did your experiences as an athlete and an artist overlap at UMBC?

A: I always had two passions growing up: playing sports and the arts. At UMBC, being an athlete and an artist was so much fun. Lots of early mornings at practice and late nights in the studio. Overall, I would say those two parts of my life have overlapped in every way possible. I enjoy using the arts to tell stories about my own and others' lived experiences. In my senior year at UMBC, I produced *A Mile in My Cleats*, a documentary about Black women in sports. It explored their stories about having intersectional identities and how that impacted them as Division 1 athletes.

Q: When did UMBC click for you?

A: When I started going to soccer camp at UMBC—my family and I immediately loved the campus—seeing the breadth of diversity, the emphasis on educational advancement, and the dedicated arts programs, I knew that I would be seen, heard, and able to thrive in the space that UMBC had built.

Q: Is there someone from UMBC who inspired you, and how?

A: Then-President **Freeman Hrabowski** spoke to a group of Linehan Artist Scholars on our orientation day. With the authenticity that he spoke with and the real joy that he felt being among his community, I felt very safe and appreciated being at UMBC. It didn't matter who you were.

Corrie Francis Parks, associate professor of animation and interactive media, showed me the breadth of the animation pipeline and all the different things that you can do in the industry. That really sparked my curiosity for learning about different disciplines and mediums, and encouraged me to pursue intermedia as my degree path. Having a wider foundation of knowledge and skill sets has set me up for success in the entertainment industry, as the work is extremely collaborative and interdisciplinary.

All of my friends on the soccer team were great. The fitness tests, the early mornings—they're bonds that have stuck with me through life. We're going to each other's weddings now!

Q: What is your current role at Warner Bros. Discovery?

A: I am a graphic designer for Warner Bros. Discovery, specifically TNT Sports. I help create the key art designs for our entire sports portfolio— NBA, NHL, U.S. Soccer, MLB, and more. Our work is seen across promotional video campaigns, digital ads, posters, and billboards. We work closely with our broadcast teams, designing logos for studio shows and building and designing physical sets.

Q: What do you find most fulfilling about your profession?

A: As small as it might be, knowing that there are such huge sports fandoms and people who look to sports as a way of entertainment or a way of connecting with those they love and their community, it's really fun. I'm always thinking of "younger me" or people who look for these moments as a source of joy throughout their day.

— Kayla Logue '27

Courtney Culp on the black carpet for HBO documentary SHAQ. *Photo courtesy of Culp.*

AT PLAY

Fine Arts Gets a Facelift

Strolling through campus, you might have noticed the blend of architectural styles, with a strong leaning toward brick brutalism (nicknamed "brickalism"), normalized in the 1960s; a typical look for a chemistry or engineering building. But you've probably wondered why the Fine Arts Building doesn't look so "artsy"?

From the outside, it may appear like a stereotypical late '60s or '70s college building. But inside, you'll find brilliant creative minds hard at work, taking photos, painting, or rendering animations. Now, thanks to UMBC's new Arts+ initiative, a public art installation by the Cheeky Magpie Collective—made up of more than 20 alumni and current UMBC student artists—transformed the windows of the first four floors of the Fine Arts Building. The bold colors and patterns give visitors an idea of the artistic processes and world-expanding learning that's going on behind the facade.

"The Fine Arts Building was really integral to our development, not only as designers but as growing students, and now alumni. All the effort we put into this design is a direct reflection of how amazing all the people in the building are," says **Thomas Hammond** '25, design, a member of the artist collective.

UMBC launched Arts+ to celebrate and connect our vibrant and multifaceted arts scene throughout campus and with the region. Through this initiative, funding was allocated for a public art installation. The Cheeky Magpie Collective's pitch to install a window treatment on the Fine Arts Building, where many of them spent most of their undergraduate career, was accepted. Collective members **Gwen Knott** '25, design, and **Jayden Rhodes** '25, design, were the lead designers of the project, with administrators **Jalen Boyd** '25, design, Hammond, and **Ni Truong** '25, design.

"I taught with the students who are now the Cheeky Magpie Collective in one of our capstone design classes," says **Kelley Bell**, M.F.A. '06, imaging and digital arts, an associate professor of visual arts, and the Arts+ coordinator for that academic area. "It's almost magical to see what we at UMBC have taught them in action. This was a fantastic opportunity for visual arts and UMBC to shine and give visitors to the campus and our UMBC community a new way to see our campus."

Members of the collective say that by showcasing the Fine Arts Building in an attention-calling way puts a crack in the perception of UMBC as "just a STEM school," bringing the groundbreaking art by UMBC students and faculty out into the light. The building and the faculty working inside were "great creative inspirations to the collective as student designers," says Hammond.

"I knew this project would be perfect to support a group of alums who are doing something exceptional in forming this collective," says Bell, who was the art director for the job. ("But the design and thinking behind that design was all theirs," she adds.)

"It felt like we were able to really contribute to the university and leave a meaningful mark on what arts can do for a community and how we can use it to build up our already pretty great university," says Boyd.

The visual style is a fusion of different inspirations, selected for their use of pattern, color, repeating motifs, and geometric and organic forms. The primary inspirations were the Arquitectonica style, and artist Sol LeWitt's wall drawings which are characterized by their bold use of color and form and exacting geometric precision, and finally, in line with the modern influences of UMBC, the Memphis and post-modern style which was emblematic of the 1980s.

While the design was handled by the members of the Cheeky Magpie Collective, the print and installation was done by the UMBC Facilities Management Sign Shop on cut vinyl.

"UMBC is about the community," says Truong. "It just makes you feel like it's home because they're always trying to give back and looking to support local companies and businesses like the Cheeky Magpie Collective. And this is our way of giving back."

— Tanzila Malik '26


EXIT

DISCOVERY

Don't Knock Wood

Picture the most advanced technology and certain qualities probably spring to mind: maybe metallic and sleek, with glowing lights and big digital screens.

The researchers at the Center for Advanced Sensor Technology (CAST) at UMBC, however, have a different adjective they aim for when designing tech: dirt cheap.

For these scientists and engineers, inexpensive doesn't mean low-quality—it means challenging traditional ways of thinking to produce affordable and reliable products that meet vital needs. Toward this end, a CAST research team recently debuted a new environmental sensor made out of simple balsa wood sheets—the kind you could buy at a craft store for a few dollars. The wood was cut and assembled to make a central well to hold samples and channels for the electrochemical components of the sensor to be inserted. The researchers coated the wood to make it waterproof and stuck it together with wood glue.

Choosing wood served two purposes: making the sensor low-cost and also environmentally friendly.

"Sustainability was very important to us," says **Revati Kadolkar**, a Ph.D. student in chemical engineering who is working on the project. Kadolkar is advised by professors **Govind Rao**, who directs CAST, and **Douglas Frey** in the Department of Chemical, Biochemical, and Environmental Engineering (CBEE). "Using wood instead of plastic for the structural skeleton of the sensor was a key step toward that sustainability," she says.

In collaboration with another UMBC team from the Center for Urban Environmental Research and Education led by CBEE professor **Claire Welty**, the CAST team tested the sensor in the field by measuring nitrate levels in streams in the Gwynns Falls watershed near Baltimore. Nitrate is a pollutant, often linked to agricultural activities, that can cause gut cancer, birth defects, and a condition called methemoglobinemia, also known as the blue baby syndrome. Its concentration in tap water in the U.S. is regulated by the Safe Drinking Water Act. The accuracy of the sensor's readings was on par with traditional equipment that costs hundreds of times more money, the researchers say.

Testing in the lab, the team also found the sensor worked well across a range of conditions, including wide variations in temperature and pH levels, and continued to operate well for more than a year.

For now, the sensor operates by analyzing droplets of water added to its central well. Going forward, the team would like to create a sensor that could be submerged in the water and report continuous measurements.

Driving down the cost of technology should drive up its impact. Cheaper sensors could be deployed in higher numbers, yielding a more comprehensive view of the world and spotting potential problems earlier.

"Let's say you want to map the whole Chesapeake Bay and know every hour if there is contamination and how it is traveling down the bay," says **Venkatesh Srinivasan**, a research associate professor at CAST who also worked on the project. "You can get these details more easily if you have lower-cost sensors."

Spreading the benefits of science and technology to resource-limited communities has been a driving force behind CAST research for decades. The team has also developed low-cost infant incubators and a suitcase-sized device to make medicine on demand.

They are already working with the Maryland company NanoForge Systems to commercialize the new nitrate sensor.

"Translating science into innovative products that can help people is what really excites me about this work," Kadolkar says.

— Catherine Meyers

Revati Kadolkar works on the new wooden nitrate sensor in the lab.

Unpacking the Phrase "Pride and Prejudice"

Figuring out what to get someone for their birthday can be both fun and daunting, especially when it's their 250th birthday. On December 16, 1775, Jane Austen was born in Steventon, Hampshire, England. ***Margie Burns****, an assistant teaching professor of English literature, is a lifelong superfan of Jane Austen's six novels.*

With Hollywood movies and New York Times *bestselling spinoffs of Austen's novels, it might seem that everything there is to say about the prolific author has already been said. Burns begs to differ as she ushers in a year of Austen celebrations worldwide with her latest contribution to the Austen canon with* Jane Austen, Abolitionist: The Loaded History of the Phrase "Pride and Prejudice" *(McFarland, 2024). This new insight into Austen's life allows Burns to open up a fresh discussion for Austen enthusiasts and to attract new readers interested in female authors who challenge societal norms by writing leading female characters with bold opinions.*

Q: When did you become interested in Jane Austen and why?

A: I first read *Pride and Prejudice* as a college freshman. I was hooked. In time, I read the rest of Austen's books. Naturally, when I like an author, I seek out everything else they've written and devour that as well. My interest deepened over time, reinforced by academic rigor. Given Austen's current global standing, I have come to think of Jane Austen as England's second Shakespeare. My "favorite" Austen book is probably whichever one I am working on, doing research on, or writing about at a given time.

Q: Why did you choose to write this book?

A: I was flabbergasted to discover how widespread, prevalent, and ethically fundamental the phrase "pride and prejudice" was in Britain and even in America before Austen chose it as her novel title. I was even more powerfully struck by finding out, across more than two centuries, that "pride and prejudice" as a phrase was being used as a critique of slavery and the slave trade. Once I dug deeper, I found hundreds of examples. Her immediate family opposed the slave trade. More importantly, the evidence is overwhelming that she opposed it.

Q: Why would anyone be interested in Austen's work centuries after it was published?

A: I dislike the word "themes" and try to avoid it, but there is no doubt that Austen's heroines, their situations, and their ethics still speak to readers today and in a language easily understood by contemporary readers. The readers are also being joined by millions of viewers, as the ever-evolving stream of film adaptations from Hollywood, Bollywood, and elsewhere demonstrates.

I am not alone in seeing that part of Austen's appeal lies in the successful transmission of ethics through her heroines: pro-health, pro-spirit, and pro-ethical stature, although not in a simplistic and preachy way. Currently, of course, the appeal is broadcast farther through a range of media and genres, from podcast to parody.

—Catalina Sofia Dansberger Duque

Margie Burns in the stacks at Albin O. Kuhn Library.

"I was even more powerfully struck by finding out, across more than two centuries, that 'pride and prejudice' as a phrase was being used as a critique of slavery and the slave trade."

—Margie Burns, assistant teaching professor of English literature

DISCOVERY

Quantum on Track

A new study led by researchers at UMBC focuses on the computationally complex challenge of scheduling trains on Baltimore's Light RailLink, a hybrid tram-rail network sharing roads with cars inside Baltimore City. It investigates whether quantum computing could more quickly resolve scheduling problems caused by train delays, which can take hours or days to solve on traditional computers.

Sebastian Deffner, associate professor of physics; postdoctoral fellow **Emery Doucet**; doctoral candidate **Reece Robertson**; and collaborators **Krzysztof Domino** and **Bartłomiej Gardas** at the Institute of Theoretical and Applied Informatics in the Polish Academy of Sciences tested whether quantum devices could manage train schedules under real-world conditions. The team leveraged the "noise" inherent in quantum computers—random, unwanted disturbances that cause an effect similar to radio static—to model unpredictable train travel times.

Their results suggest that quantum computers can solve transportation scheduling problems, but more advanced hardware is needed for quantum devices to be practical, especially for larger networks.

"How long it takes you to get between two stations where you have a lot of shared infrastructure in between—you can't really predict that precisely," Doucet says. This randomness complicates scheduling, but the team's diverse expertise—spanning theoretical physics, algorithm design, and quantum hardware—facilitated creative solutions.

Current quantum computers are classified as "NISQ," or "noisy intermediate-scale quantum," pronounced "nisk." That means they're error-prone with only moderate power. Rather than fighting the noise, though, the researchers used it to mimic everyday randomness, like traffic delays.

"The 'N' in NISQ stands for 'noisy,' but that doesn't mean that the noise has to always be deleterious," Doucet explains. "We wondered if maybe we could use the noise that the device is subject to as a tool to model the chaos and randomness."

The team tested their approach on two different quantum computers, one made by IonQ, which is headquartered in Maryland, and the other by D-Wave. Each company's quantum devices use quantum bits, or qubits, slightly differently to process information. The research team was able to solve scheduling problems with up to 12 trains on D-Wave's system, which contains thousands of qubits, and only two trains on IonQ's 25-qubit system.

This proof-of-principle work demonstrates that quantum computers can tackle concrete problems, though they're not yet faster or cheaper than classical supercomputers for large networks—the experiments cost about $65,000.

"What we've shown is that with the currently available hardware, you can already solve practical problems," Deffner, senior author on the new paper, says. The study highlights the need for larger, less noisy quantum systems to handle bigger networks.

The potential impact is significant; rapid rescheduling could prevent network-wide disruptions.

"If you have an issue on a train network, everything has to stop until you reschedule, at least in that region—and the longer it takes you to come up with a new schedule, the more disruptive the original problem becomes," Doucet noted.

Robertson, a Ph.D. candidate in computer science, added, "Within the next few generations of quantum technology, the problems we could address will get larger, approaching problems that are intractable on current hardware."

Robertson's computer science background complements the team's physics expertise.

"Someone else might be able to help me with physics intuition, and then I can help them by suggesting an algorithm we could use to test their idea or by applying some computational intuition that we could use in designing our quantum solution."

"Quantum information science is truly interdisciplinary," adds Deffner, who is also affiliated with the UMBC computer science and electrical engineering department and has master's-level math training.

This interdisciplinary, quantum-based approach could eventually optimize logistics, financial portfolios, or drug discovery—fields with complex, random variables. The study, funded through Deffner's fellowship at the National Quantum Laboratory, involved coding, theoretical modeling, and experiments on real quantum devices—a departure for Deffner's typically theory-focused research group.

Working on the Baltimore system was a fun challenge, Deffner says, because the Light RailLink transitions from operating outside the city as a train unaffected by traffic to a tram navigating city streets and stopping at traffic lights inside Baltimore. "Because of its unusual characteristics, it was just a unique problem. And of course, it's cool to work on a local system," Deffner says.

By uniting diverse expertise, UMBC's team is turning quantum noise into a strength, paving the way for efficient solutions to real-world problems.

— Sarah L. Hansen, M.S. '15

Follow the QR code to watch a video of Emery Doucet, left, and Reece Robertson, right, explain the challenges of quantum train scheduling. Photos and video by Elijah Davis, M.F.A. '21.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IMPACT

Emergency Care Is Personal

Pete Fitzpatrick '96 completed his paramedic training in a speeding ambulance in West Baltimore over 30 years ago. It wasn't the career he had envisioned, but after a friend gave him a textbook for an elective emergency medical technician, or EMT, class, he switched his major to emergency health and disaster systems. "I kind of fell in love with it. As a kid, I never saw it as a profession for me," says Fitzpatrick. "There are no firefighters or paramedics in my family."

His ability to communicate clearly and calmly under pressure, foresee medical or technical issues, and notice the tiniest details led him to return to school for nursing. He first worked in an adult neuroscience unit at Johns Hopkins Hospital before returning to ambulance and helicopter transport, including pediatric transport.

Fitzpatrick has spent the last 12 years at Children's National Hospital in Washington, D.C. As a transport team shift coordinator, he meets the needs and addresses the challenges of flight crews, medics, receiving hospitals, and families before, during, and after helicopter or ambulance transport. "I remember my surprise the first time somebody referred to me as a pediatric nurse," says Fitzpatrick. "I guess I am."

In light of Fitzpatrick's background and relevant training, in May 2025, he was appointed as one of 12 members on Maryland's Opioid Restitution Fund Advisory Council. Established in 2022, the council makes recommendations for the allocation of financial settlements from prescription opioid-related lawsuits to help fund programs and initiatives that address the opioid crisis. Fitzpatrick, who is married to **Kim Fitzpatrick** and father of **Sam**, **Mikey**, and **Danny** (a first-year chemical and environmental engineering student), serves as the council member representing those who have lost a family member to an opioid overdose.

"It's really a sad story. My oldest child, Sam, died of a fentanyl overdose in May of 2020. He was 22," says Fitzpatrick. Fentanyl is a highly addictive synthetic opioid used in hospitals to treat severe and chronic pain from cancer and surgery. The Maryland Department of Health reported that between September 2024 and August 2025, there were 631 opioid-related deaths in Baltimore City and County combined, 575 of which were fentanyl-related deaths.

"I tell my colleagues, in emergency pediatric transport, we deal with children in sometimes very tragic circumstances," says Fitzpatrick. "I say to them, 'When you lose a child in transport, there's only one thing you can do—you have to go and try to save the next one.'"

Coming from an emergency medical services (EMS) system approach, Fitzpatrick hopes the opioid crisis will be solved through similar measures. "The 1973 EMS Systems Act came about because of the rise in deaths due to a lack of emergency care," he says. "The act created grants and programs to fund EMS training, equipment, and infrastructure."

Broadening access to lifesaving treatment for opioid use disorder is always on Fitzpatrick's mind. Having access to good healthcare, a supportive family, education, and intervention resources helps, but he notes that not all families have that. For example, there were times when Sam was in crisis and the family needed access to the police department.

"Baltimore County has a great crisis response," Fitzpatrick says, "but what if we had not felt comfortable accessing the police department when we needed that help?" He now serves on the Police Accountability Board for Baltimore County to help strengthen the relationship between police and the community and fundraises for the American Society of Addiction Medicine.

"Sam had a lot of things going for him, and it still didn't work. That's sad. There's only one thing I can do at this point," says Fitzpatrick, "and that's to try to make a difference."

— Catalina Dansberger Duque

Above: Pete Fitzparick's work as a shift coordinator with the transport team at Children's National Hospital sometimes finds him caring for sick and injured children in the team's helicopter, SkyBear. Below: An undated photo with Fitzpatrick and his son Sam as a young boy.

Retrievers Behind the Scenes

Erik Crowe has blended technical expertise with educational support for faculty, staff, and students as the Physics Building manager for the past decade. He thrives on daily problem-solving, collaboration, and expanding his skills amid the department's innovative spirit.

Q: What do you enjoy about your role?
A: Every day presents new challenges to solve. My position allows me to leverage my background in facilities management and educate students, staff, and faculty in the machine shop. The role takes large doses of patience, persistence, organization, and communication skills. In a crisis, you have to stay calm, gather data, formulate a plan, communicate the impact, and follow up. No day is ever the same.

Q: What brought you to UMBC?
A: I started out as a process engineer at NASA Goddard. I enjoyed it, but working in a clean room is grueling. The lab specialist position at UMBC was the change I needed.

Q: What are some of your proudest moments?
A: I am particularly proud of collaborating to renovate 40 spaces with minimal interruption for the occupants. I am also proud of the ongoing work to improve the HVAC system—completing the HVAC study last year was a huge milestone.

Q: Where are your favorite spaces and hidden gems in the Physics Building?
A: The machine shop is my favorite space. Over the last decade, I've built it to match the department's needs. It's a lean facility, but it packs a punch. We also have a dedicated research platform on the roof. It gathers data for atmospheric physics and astrophysics research. The roof also provides some of the best views on campus of the Baltimore skyline.

Read more about the people behind the buildings at UMBC: umbc.edu/stories/unsung-heroes-building-managers.

Lending a Paw to Federal Workers

In spring 2025, thousands of U.S. federal workers were unexpectedly laid off, many living in the Washington, D.C.; Maryland; and Virginia area. **Patrick Shirdon** '92, economics, a civil servant of 33 years, was among them. While searching for resources, he found UMBC's Paws & Pivot free career development webinar series covering résumé writing, interview preparation, navigating a tech-centered job market, and more.

"After losing my job, I didn't know what to do. I was happy to find something to do—and this series became more than that for me," wrote Shirdon in an email to **Rex Jarrett**, the director of professional programs in UMBC's Division of Professional Studies (DPS).

"Growing up in Maryland, I knew many parents who were federal workers," says Jarrett. "Many of my friends followed in those footsteps and were impacted by the layoffs." The 2024 annual Maryland employment report totaled the Maryland workforce at 2,764,497 people, 530,257 of whom were local government, state, or federal employees.

With skills in webinar development, Jarrett knew this format could quickly serve a wide audience. **Jill Barr**, then associate vice provost and assistant dean of the Graduate School, and **Julie Gilless**, assistant vice provost for marketing in DPS, agreed. What began as an idea grew into a conversation and became a call to action.

Jarrett joined UMBC in fall 2024 after nearly a decade leading the Harvard Business Analytics Program at Harvard Business School. He was excited to return to Maryland and use his expertise in career growth and community engagement for the greater good. Jarrett's passion stems from a persistent question: How can I make the world a better place? He didn't anticipate that the answer would come so soon after joining UMBC nor that it would involve hundreds of federal workers.

The team assembled a committee and agreed that the series would be free—regardless of a UMBC affiliation—and air on the division's YouTube channel. Thanks to DPS's **Rashad Cheeks**, associate director of marketing, and **Theresa Mabe**, marketing data manager, the series received a memorable name and logo. The

first episode of Paws & Pivot, "Building Your Digital Brand," aired in April 2025 and featured **Rowena Winkler**, assistant director for graduate student career development. The team is heartened by the response, says Jarrett. And the impact is real.

A few months after tuning in, Shirdon wrote to Jarrett: "Today, I attended my orientation day with the human resources team at my new organization. It has been 33 years since I was a 'new' employee!"

The University Professional and Continuing Education Association has nominated Paws & Pivot for their 2026 Regional Program Award as a Mid-Atlantic educational program that addresses a regional need, totaling 15 sessions, 150 registered participants, and engaging over 900 impacted federal workers.

"Paws & Pivot was/is amazing. In addition to the wonderful, technical information taught, an unintended benefit for me was the ability to have an event on my calendar. It gave me something to look forward to, and truthfully, I learned a lot," writes Shirdon. "I certainly had my share of ups and downs—more downs than ups. But UMBC's effort was an absolute blessing for me. Now, I just have to go and do great stuff! Ball in my court."

— Catalina Sofia Dansberger Duque

Above: Rex Jarrett, second from right, with the Paws & Pivot webinar series team.

IMPACT

Catalyzing Stronger Bonds with AstraZeneca

Thousands of students attended UMBC's 2025 Fall Career and Internship Fair, and the line was sometimes 30-odd students long to speak with **Mark Benesch** '08, chemical engineering, at the booth for pharmaceutical giant AstraZeneca. Benesch has regularly brought his enthusiasm and energy to UMBC career fairs, first as a recruiter for ExxonMobil and later for chemical company W.R. Grace. But it was after starting at AstraZeneca as the senior director of the capital projects portfolio for the Americas region in 2023 that Benesch elevated his connections with the university.

AstraZeneca employs thousands of people across Maryland, including at a large scientific campus in Gaithersburg, a drug manufacturing center in Frederick, and a new facility in Rockville that will produce cancer immunotherapy drugs. The company has announced plans to invest $50 billion in the U.S. by 2030 for medicines manufacturing and research and development.

From the hundreds of UMBC alumni at AstraZeneca, Benesch has recruited a team of eight who are dedicated to forging stronger links to their alma mater. With partners in AstraZeneca's Early Career Programs, they have built a strong, alumni-driven network linking UMBC students with opportunities at the company.

"Mark is always thinking about innovative ways to connect," says **Christine Routzahn**, director of the Career Center at UMBC who has worked with Benesch to expand the UMBC-AstraZeneca partnership. "He's very passionate about UMBC and ensuring our students are successful."

Benesch's efforts were recognized when he received the 2025 Distinguished Service Alumnus Award this October.

Beyond career fairs, under Benesch's stewardship, AstraZeneca played a key role at the UMBC-hosted 2024 Mid-Atlantic Student Conference for the American Institute of Chemical Engineers (AIChE). The company sponsored the event, and **Pran Patel**, the vice president of global engineering and real estate at AstraZeneca, served as a keynote speaker. Benesch met monthly with student organizers of the conference, helped lead a popular conference workshop, and mobilized other AstraZeneca employees to volunteer.

"From a five-minute conversation at the career fair, Mark took the initiative to follow up and create real collaboration opportunities," says **An Dang** '24, a student organizer who led the fundraising efforts for the conference.

Benesch and his team have also worked with UMBC to launch collaborations such as on-campus information sessions and recruiting events, alumni happy hours, and tours and networking at the AstraZeneca Gaithersburg campus.

The efforts have paid off: The number of UMBC students applying to summer internships at AstraZeneca has increased by 31 percent in the past year, and the number of students accepting internships has grown from one in summer 2024 to seven in 2025.

On the research side, Benesch attended the College of Engineering and Information Technology's Research Day and is facilitating discussions about potential joint projects between AstraZeneca and UMBC faculty.

"Mark's ongoing dedication to serving his alma mater has been nothing short of extraordinary," says **Mariajosé Castellanos**, teaching professor in the Department of Chemical, Biochemical, and Environmental Engineering who first met Benesch in her thermodynamics class in 2006. "As a faculty member who has been in the department for 20 years and served as the AIChE UMBC chapter advisor for the past nine, I can confidently say that I have never seen this level of consistent engagement and support from any other undergraduate alumnus."

Benesch, who was the first from his family to go to college, credits his UMBC education with empowering him to realize his potential.

"At UMBC, I was exposed to so much, and from that I gained confidence. Technical confidence, yes, but also the confidence to navigate the diversity of the world and the opportunities that come from that," he says. "So I'm inspired to help today's students receive that same kind of support."

"Mark is so animated when he's connecting with people. He listens well and he really brings out the best in students," says **Miriam Friedman**, assistant director of alumni professional networks.

On his part, Benesch says the students give him energy. "They are curious and smart, and I see their enormous potential," he says. "To give them opportunities to realize it for themselves is really gratifying."

Abi Postus, a chemical engineering junior who interned this summer on Benesch's AstraZeneca team, says she was impressed by his efforts to connect her to resources and make sure she got the most out of the experience.

"I remember one piece of advice he told me," she says, "which was: 'Don't be afraid to take up space.' I found that very helpful because this was my first internship and it was kind of daunting. That made me feel more confident."

— Catherine Meyers

Below: Mark Benesch talks with students at the 2025 UMBC Career Fair (photo courtesy of Miriam Friedman); right: On the AstraZeneca campus, Benesch gathers with fellow UMBC alumni and recruiting team members Chioma Ngobili '04, Tania Monterastelli '08, Matthew Schwarz '11, Benesch, Shakir Muradymov '07, and Sara Rego.

Renaissance Retrievers

Written by Sarah L. Hansen, M.S. '15
Illustrated by Kelsey Davis

It was polymath Leonardo da Vinci who declared, "Learning never exhausts the mind," a credo that propelled a rebirth of education with people seeking to master art, science, and invention in pursuit of human potential. At UMBC today, this same spirit thrives among our many "Renaissance Retrievers"—students, faculty, and staff who blend disciplines into a symphony of diverse talents and whose stories reveal a community where interdisciplinary curiosity isn't an exception but rather the engine of innovation.

Jazz harmonies and rhythms emanating from a grand piano echo through The Commons, mingled with the smell of coffee and sound of student conversations. At the bench sits **Elia Mascolo**, who has just completed his Ph.D. in biological sciences with a focus on bioinformatics and information science. He's a math, biology, and computer science whiz who once thought he'd rather be a professional musician—and had a real shot at it.

Across the Quad, on the fourth floor of the Math and Psychology Building, **Manil Suri**, professor of mathematics, scrawls partial differential equations on his office whiteboard. In the evening, he pores over the manuscript of his forthcoming memoir, *A Room in Bombay*. It's the latest of his nonacademic publications—a list that includes a trio of bestselling novels and regular *New York Times* columns.

Meanwhile, **Bonnie Lander**, production coordinator for the Performing Arts and Humanities Building, is speaking with urgency into her headset, quickly resolving a catering glitch before guests arrive for a performance of *Shakespeare in Harlem*. The following night, she's onstage, lending her soprano to an experimental music festival put on by High Zero Foundation, a Baltimore-based group that Lander also supports as a board member and volunteer.

While Lander sings, **Mareisha Banga**, a senior double majoring in information systems and design, is coding on her laptop, and **Mahrukh Eijaz**, a senior studying information systems and media and communication studies, is analyzing how media consumption affects our worldviews.

Mascolo, Suri, Lander, Banga, and Eijaz merge scientific rigor and technical analysis with artistic and literary expression. In a world of specialization and targeted career goals, these community members might sound like rare exceptions. But at UMBC, they're far from alone. The university's interdisciplinary ethos invites students, faculty, and staff to forge paths that cultivate the full spectrum of their interests and potential.

Nearly half of UMBC students are pursuing either a second major, a minor, an undergraduate certificate, or a combination of these. Looking at the most popular majors across UMBC's three colleges, 58 percent of psychology majors are taking on an additional area of study, including dance, chemistry, and creative writing; 55 percent of biological sciences majors are working toward additional credentials, such as in music, finance, and Arabic; and 30 percent of information systems majors are pursuing something else, from entrepreneurship to Japanese.

And for students whose interests don't fit within an established major, there is the Individualized Study Program (INDS). Launched in 1969—only three years after the university's opening—INDS is one of the longest-standing individualized degree programs in the country. It affords motivated, intellectually mature students the opportunity to construct their own academic sequence, limited only by their ingenuity.

Employers see the value in a diversified education. A 2013 survey commissioned by the Association of American Colleges and Universities revealed that 80 percent of employers believe all college students, regardless of major, should gain broad knowledge in the liberal arts and sciences to succeed in today's workforce. Skills like critical thinking, communication, and adaptability don't just fill résumés, though; they build lives resilient to shifting workforce winds and position UMBC alumni to impact the world for good.

Harmonies and helices

Speaking from an apartment in Vienna, Austria, where he's about to launch a postdoctoral fellowship in theoretical biology at the Institute of Science and Technology Austria, Mascolo describes how overhearing his older sister's piano lessons as a child inspired him to sit down at the bench. "It felt just like a big toy. But a super interesting one," he recalls.

Eventually, he took his own lessons. "When I was studying classical music, I didn't see the point of jazz music at all. I was like, 'I don't know what that is,'" he admits with a laugh. But curiosity won: Hearing a modern jazz piece, "I had to admit I had no idea what I was hearing. I didn't like it yet, but there was structure; it was something different from random." He found the genre's improvisational chaos a puzzle demanding a solution. What started as an academic mission evolved into joy and appreciation. "I wanted to defeat jazz, and the opposite happened," he says.

Poised to pursue music full time after high school, Mascolo's parents urged him to take a detour at university. "They said, 'You have always had this super strong interest for science. Why don't you do one year of something scientific? If you still say after that, 'I just want to do music,' we'll support you.'"

He chose biology, thinking it would leave more room for piano gigs. But "after one year, I was like, 'Actually, I like science a lot. I want to keep doing both.'" He was drawn to UMBC to work with computational biologist **Ivan Erill**, but when classmates learned he played piano, they recruited him for the department band, Fever Dream. "They said, 'Hey, we figured out that you were a piano player,' and I could not say 'no.'"

Mascolo's two passions might seem completely different, but there are surprising and profound parallels. Both biology and jazz resist tidy reduction. "Music and biology share complex structures that invite analytical exploration, despite differing contexts," he notes. In bioinformatics, he applies information theory to gene regulation, much like decoding harmonic progressions.

"You start with these simple rules, and then something is built on those in a way that is too complex to completely figure out," he reflects. "Biology and music demand a leap of wonder. It's like a color; can you describe a color with words to a blind person and have them know exactly what the color looks like? It's not clear that you can actually reduce that to language."

This duality guards against tunnel vision. Having once obsessed over jazz stardom, imagining "that was the only important thing in the world," and then coming to experience just as much passion for scientific research has taught Mascolo that "it doesn't do justice to a person to equate fulfillment with a specific career."

Elegant equations and sentences

Suri, too, has found ways to meld his disparate skills. His novels, like *The Death of Vishnu*, long-listed for the 2001 Booker Prize and short-listed for the 2002 PEN/Faulkner Award, have graced *The New York Times*-bestseller list, his math-related columns have helped demystify the discipline for lay audiences, and he has contributed to progress in the mathematical field of numerical analysis. Yet his dual life as novelist and mathematician started as a lark. "Everyone has hobbies," Suri says. "I know people in the department who act in plays, for example. My hobby was writing."

Not until he was tenured did Suri join writing groups and classes at The Writer's Center in Bethesda, Maryland. He broke onto the literary stage when an agent excerpted his debut novel in *The New Yorker*.

Suri's writing and math worlds merged with his 2022 book *The Big Bang of Numbers,* which traces how to "build the universe with only math." The book was inspired in part by a math-humanities mash-up UMBC honors seminar, which he co-taught with English faculty and Folger Theatre resident dramaturg **Michele Osherow**. That course also led to a play,

The Mathematics of Being Human, co-written by Suri and Osherow that premiered at UMBC and then ran at the National Museum of Mathematics in New York City and other sites in the U.S. and Canada.

This fusion sharpens his teaching, too. In a writing-intensive history of math course, Suri grades students' writing like a novelist. "They got a shock. 'Hey! This guy is really serious about essay writing,'" Suri laughs. "Writing is so essential when you're trying to articulate technical things." Employers echo this claim: Broad liberal arts skills like communication boost employability across fields. Suri's students—many future STEM teachers—emerge equipped to bridge disciplines.

Spotlights on strings and schedules

Lander's voice soars through experimental operas at night, but by day, she orchestrates UMBC's performing arts venues. As operations and production coordinator for the College of Arts, Humanities, and Social Sciences, she books events, manages staff, and troubleshoots the rare crisis—like the time fog from a theater rehearsal triggered fire alarms mid-concert. "Everybody had to evacuate. After we all returned to the hall, the pianist sat down, picked up where she left off, and finished the last 10 minutes of a 70-minute piece. It was incredible."

In 2007, Lander co-founded Rhymes With Opera, which premiered more than 22 chamber operas over its 15-year run. In 2018, she began working with 2640 Space, a nonprofit event venue in Baltimore. During the pandemic, "I wrote out the entire handbook and operations manual for 2640 Space. It was a big labor of love," she says. In that role, her love of events management grew.

"I wanted to bridge the gap between tech and storytelling, because I believe the most impactful innovations come from people who can speak both languages."

—Mahrukh Eijaz, information systems and media and communications senior

Lander joined UMBC in January 2023, blending her worlds. Her role in the PAHB "pays the bills and comes with a wonderful community," she says, and "I still have plenty of time outside of work to continue pursuing performance." On top of her production role, she teaches voice lessons and led an improv workshop for UMBC's Linehan Artist Scholars.

The contrast in the skills required for logistics management versus performance keep her on her toes. During a performance, "your primary role is to exist solely in the present moment" while coordinating events requires tracking many elements on a strict timeline. "When is the caterer showing up? When is furniture being delivered?" Lander says. "But, as with a musical performance, if you've prepared well, you can usually just press play, enjoy the event, and go home having made an impact."

In Lander's experience, UMBC's venues aren't just stages—they're launchpads for lives lived in 360 stereo.

Bridging beauty and bytes

Mareisha Banga fuses aesthetics and algorithms as a senior double majoring in design and information systems. Banga is drawn to user experience and user interface (UX/UI) projects, where the visual and functional worlds collide. "I didn't want to just make something beautiful. I wanted to make it work," she says.

"Having both perspectives made me a more well-rounded thinker and creative," Banga says. "The more I learned about systems and how people interact with technology, the better I became at designing visually. Similarly, design helped me understand the human element behind the technical problems I was trying to solve. They push and inform each other in ways I didn't expect when I first declared both majors."

Those connections have created unique opportunities for Banga, including as a designer for the UMBC Student Events Board. "Not only do I get to design and plan events, which I love, but the fast-paced environment and tight turnaround times have helped me grow as a professional in ways I didn't expect. It's taught me how to work under pressure, communicate with people, and what it really means to be a student leader on campus."

Her unique skillset is attractive to prospective employers, too. "My interviewers have consistently been fascinated by my background, wanting to dig deeper into how I think about problems from both perspectives," Banga says. "I genuinely believe I wouldn't have the same prospects if I'd only focused on one major."

Senior **Mahrukh Eijaz** has similarly merged two fields that initially might seem unrelated. "I've always been interested in how people and technology interact. My information systems major gives me the tools to understand how systems and data work while my media and communication studies major helps me think critically about how messages and

meaning shape those systems," Eijaz says. "I wanted to bridge the gap between tech and storytelling because I believe the most impactful innovations come from people who can speak both languages."

Like Banga, Eijaz has found that her unusual double major has opened doors. "Having both degrees has made me more confident in my ability to adapt and collaborate," she shares. "I feel more prepared to work in interdisciplinary environments, whether it's in UX design, digital marketing, or tech policy, because I can translate ideas between technical and creative teams as well as with consumers."

The support she found at UMBC has enhanced her ability to blend her two majors. "Professors in both departments encouraged me to find connections between the fields, instead of treating them as separate paths," Eijaz says.

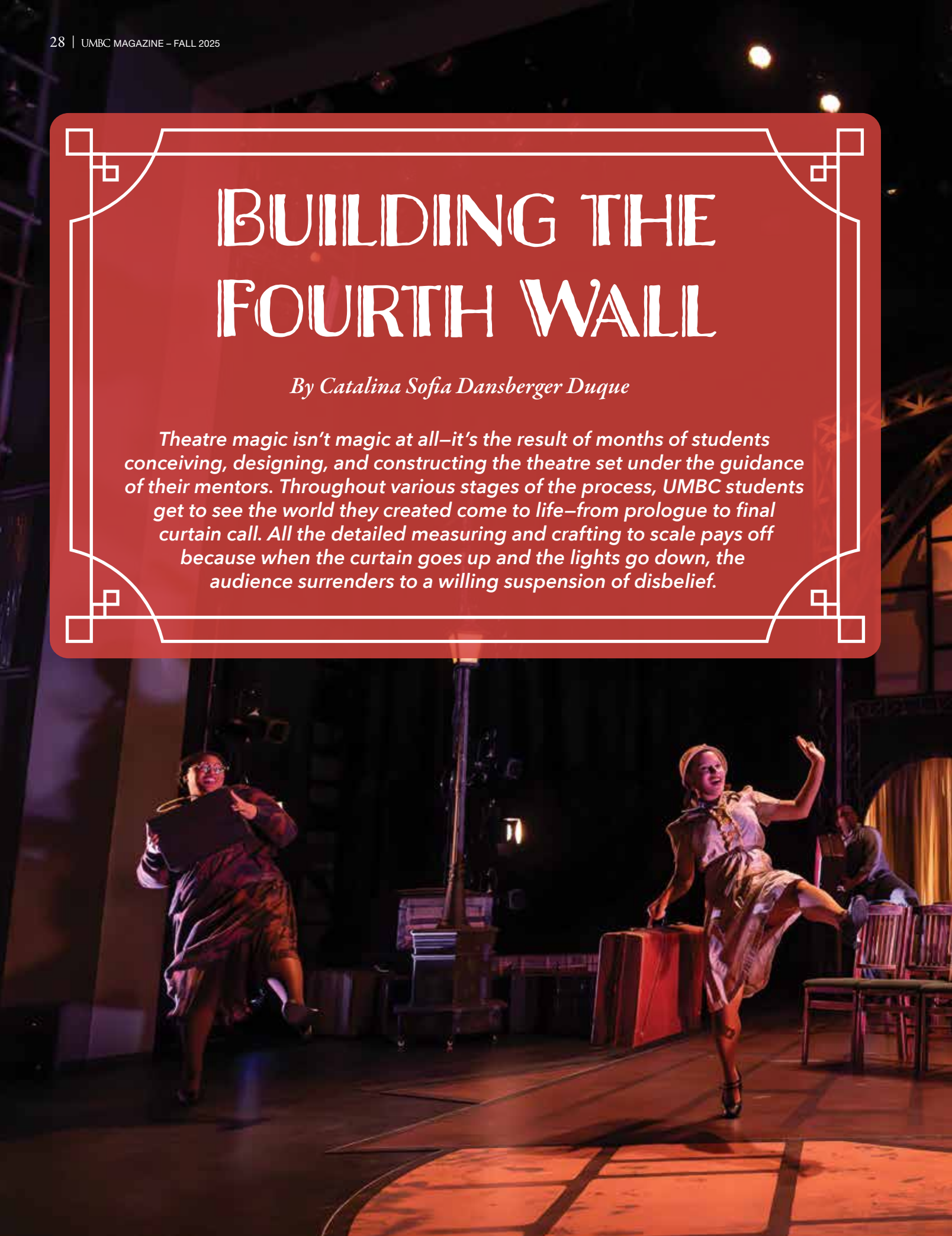
That encouragement is no accident. The way Eijaz is making connections, like the way Mascolo dissects jazz chords with the same analytical eye he brings to gene regulation, is exactly the inclination UMBC seeks to cultivate. The role of a liberal arts institution is not to slot students into pre-grooved tracks but to offer fertile terrain where seemingly disconnected gen-eds become scaffolding for unexpected connections. In this environment, every Retriever forges a personal mosaic of ideas, methods, and passions that no single major could contain.

It is here, in this complex intermingling, that Renaissance Retrievers emerge—adaptable, inspired, and whole.

Building the Fourth Wall

By Catalina Sofia Dansberger Duque

Theatre magic isn't magic at all—it's the result of months of students conceiving, designing, and constructing the theatre set under the guidance of their mentors. Throughout various stages of the process, UMBC students get to see the world they created come to life—from prologue to final curtain call. All the detailed measuring and crafting to scale pays off because when the curtain goes up and the lights go down, the audience surrenders to a willing suspension of disbelief.



The Shakespeare in Harlem *ensemble celebrates arriving at Penn Station—designed and constructed by a dedicated team of students and their mentors. Photo by Kiirstn Pagan '11.*

PROLOGUE

"Attention on stage" echoes loudly across UMBC's Proscenium Theatre as **Malaak McDonald**, a theatre design and production and geography and environmental systems junior, warns the production crew to stop and await safety instructions.

It's a humid summer day, technically the off-season for UMBC's theatre shows, but not for the production crew. From mid-May to mid-August, the undergraduate production staff set up construction stations across the Proscenium and the Black Box theatres.

"Lineset, second electric, flying in, down stage," says McDonald. The crew of five, in unison, looks up to ensure they are not underneath the second electric batten descending by a manual counterweight pulley system.The batten is a hollow metal bar, about the length of the stage, with electrical cables tied to it inside and rigged with hooks to hang stage lights and scenery. Fully loaded, it can weigh hundreds of pounds and can be flown in (lowered down) or flown out (raised) for seamless scene changes. Once the bar is at eye level and the line is locked, the crew returns to work.

All were trained by **Gregg Schraven** '97, production manager for UMBC's design shop, and **Evan McDougall**, assistant technical director, to use on-site industrial woodworking tools, welding machines, and behind-the-scenes stage technology.

To produce two fall plays and two spring plays annually, the faculty, staff, and students in UMBC's theatre productions must adhere to a strict cycle that begins in November when the next season's plays are chosen. Directors develop their script and then share their vision with the set, lighting, sound, and costume designers. They then pick their student counterparts, all while producing the current season and teaching classes.

Theatre magic is not magic at all. It is the product of extreme organization, hefty technical skills, and commitment to learn, show up, and do the work. Theatre is a community service, explains **Gerrad Alex Taylor**, assistant professor of theatre and director of the 2025 – 2026 season opener, *Shakespeare in Harlem*, in celebration of a hundred years since the Harlem Renaissance and part of UMBC's Arts+ initiative.

"This phenomenon of watching a play is cathartic and an important community service. It's healing. It's a service of the heart," said Taylor, a classically trained Shakespearean actor. "We have to ask, 'What do the hearts of people need right now?' and what stories can we be telling to connect with their hearts?"

Left: Malaak McDonald looks up at the electric batten. Above: Abigail Adams, media and communication studies junior; McDonald; Ann Davies, visual arts and theatre design and production senior; Tyler Brust; Adam Harper, mechanical engineering and theatre design and production junior; and Gregg Schraven at the scene shop. Photos by Brad Ziegler.

Top left to right: Evan McDougall and Tyler Brust work on a set piece; Brust discusses the floor design with student staff. Photos by Brad Ziegler.

Bottom: The forced perspective floor designed for the 2019 The Turn of the Screw. *Photo by Marlayna Demond '11.*

ACT 1: TOOLS OF THE TRADE

That kind of passion needs precision. Three years after graduation, **Tyler Brust**, theatre, a scenic designer and technical director, is a staple at the UMBC scene shop, where he is often on contract for the build cycle through tech week while also working in local theatre. "Coming back as an alum, it felt like I did not miss a beat as a result," said Brust. "I immediately felt like I had the tools I needed to effectively lead small groups of student staff where necessary, all while balancing my own personal task list."

He remembers his first production team project in 2019, building the floor layout for *The Turn of the Screw* set in late 1800s England. The students created an illusion, a forced-perspective floor. Wooden floorboards were designed to be widest near the audience and gradually narrow toward the back of the stage, making the stage appear deeper and longer, creating a railroad-track effect. "This was all done by hand, with a straight edge and a router," said Brust.

"Now, for *Shakespeare in Harlem*, Evan helped us through a multi-step process to modify the hardboard floor from last fall's play. I now have the skills to completely fake these lines via paint and handle the complex layout of overlapping ovals and forced-perspective bricks," said Brust.

McDougall calls this "theatre production with training wheels." Before the drilling and the cutting commence, he has students start with what he calls the boring part—reading the manufacturers' manuals. He then reminds students of his number one rule: Don't trust anything you can't confirm yourself. "The students say I have trust issues. You can't make any assumptions about what is true in theatre production," said McDougall. As UMBC's assistant technical director with decades of experience in woodworking, welding, and blacksmithing, he is indispensable for students to understand the mechanical, manual, and technical aspects of set design, growing in expertise over their time at UMBC.

"I joke with my students that they come in with this preconceived notion of 'this is parallel, this is plumb or level'—and once we begin installing sets and moving pieces around in the space, those realities don't exist anymore," said McDougall. After all, the technical director aims to execute the scenic designer's vision while the scenic designer works to visualize and create the environment the director imagines.

Brust absorbed every lesson alongside McDougall and Schraven, which helped him become a Swiss Army knife of technical abilities as a carpenter, scenic artist, puppet artist, associate scenic designer, and design and technical coordinator. "The agency and mentorship that Gregg and Evan give students is what makes all the difference," said Brust. "It allows us to flex our muscles into actual project management, which is otherwise difficult to emulate during a class session."

ACT TWO: METAL, STEEL, AND WOOD

In partnership with the Langston Hughes estate, Taylor adapted Hughes' collection of monologue poems exploring the rhythms of jazz, the blues, Black love, and the daily struggles and joys of life in Harlem into a full-length play, blending poetry, music, and dance for an immersive journey into the world he so vividly celebrated. The only thing left to do was to construct an equally inspiring home into being. To bring the physical world of the Harlem Renaissance to UMBC, Taylor worked with **Nate Sinnott**, the scenic designer and faculty properties and paints supervisor.

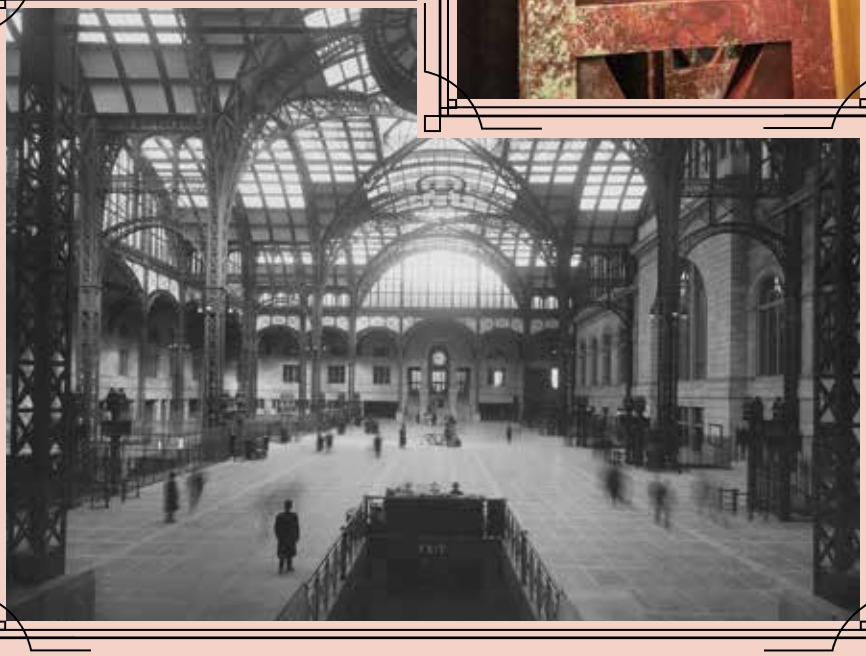
Sinnott found inspiration in the original New York City Penn Station of the 1920s with 150-foot ceilings, granite columns, steel-vaulted ceilings, and an arching glass roof. Enter Schraven, McDougall, Brust, and the summer student production staff: McDonald; **Adam Harper**, a theatre and mechanical engineering senior; **Ann Davies**, a visual arts senior; and **Abigail Adams**, a media and communication senior.

Together, they built the director's vision creatively and safely—with a unique twist. Taylor, who is a member of the resident company at Chesapeake Shakespeare Co. (CSC) and founder of the company's

> **"When I was a student, I was easily in the shop six to 10 hours a day. I probably did more welding in a year than they will do in their entire careers. That's why I keep the shop open to students in the summer. That's why I have a student labor budget and why 100 percent of all show proceeds are for undergraduate scholarships. I want to use every single penny of it on students"**
>
> **– GREGG SCHRAVEN '97**

Right: Part of the set's faux steel trellis after layers of paint have been applied. Photo by Brad Ziegler.

Below: Photo courtesy of New-York Historical Society, "Manhattan: interior main concourse of Penn Station, 1911," which served as the inspiration for UMBC's Shakespeare in Harlem *scenic design.*



Black Classical Acting Ensemble, thought through a project that could "uplift the Black students who are about to graduate and have the acting chops to handle the material and bring some of the Black Baltimore community to UMBC," said Taylor. "Then take this Black ensemble and bring it back to Baltimore City's community." In brainstorming what all that could look like, UMBC theatre developed a collaboration with CSC.

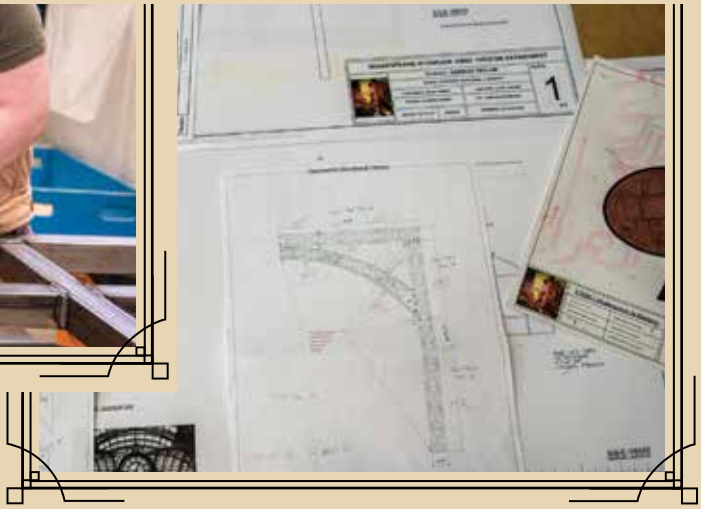
This means that the technical crew designed the set to work for both UMBC's Proscenium Theatre and Baltimore City's CSC's stage. The production team built a forced-perspective floor and 19-foot-tall faux steel trellis arches constructed from multiple layers of wood and foam. Each trellis was finely carved with intricate triangular patterns using a computer-controlled machine, then glued together in pairs to form eight lightweight units. The arches had built-in break points, allowing them to be disassembled, packed into a 16-foot truck, and reassembled identically at each theatre—even with performances months apart.

"My job is to teach the students to the point where they can do it all," said Schraven, associate teaching professor and technical director. For Schraven, UMBC is more than where he began studying theatre in 1989 and more than the place where he has worked, off and on, since the 1990s. It is where he gets to pass down the more than 30 years of theatre tech knowledge to students working in a scene shop he helped design.

"When I was a student, I was easily in the shop six to 10 hours a day. I probably did more welding in a year than they will do in their entire careers. That's why I keep the shop open to students in the summer. That's why I have a student labor budget and why 100 percent of all show proceeds are for undergraduate scholarships. I want to use every single penny of it on students," said Schraven. "The more you're in the shop, the more you learn. When students learn how to weld, I tell them to give it 80 times. Then they'll be really comfortable with it."

Top: Brust and Harper inspect the height of the trellis.

Bottom: The official technical drawings for the arches. Photos by Brad Ziegler.



Davies works on steel to add to a set structure at the Black Box Theatre. Photo by Brad Ziegler.

ACT THREE: DRESS REHEARSAL

It's two weeks before showtime. At 6:30 p.m. sharp, the unspoken hero of the play, **Tatiyana 'Tati' Terrelonge**, an acting and media and communication studies junior, is poised at center stage on the floor designed to look like brown bricks. Terrelonge, who intrepidly served as the entire cast's understudy, is holding a binder with the lead's lines at the ready. Looming behind her is the finalized floor-to-ceiling vaulted arch. Four costumed students sit in wooden chairs recently stained brown by the production crew while another peeks out of a window, one of several frosted glass ceiling panes below the arch.

In the audience are four crew members managing lights, sound, props, and character lines. Today, the lines are for a scene where a character, Bruce, is writing a letter to his mother in the South, and another character, Leonard, is reading a letter to his sweetheart, begging her not to return to the South.

They represent the millions of Black men and women of the Great Migration, who fled the legacy of slavery and the terror of racism of the South between 1910 – 1970 for the North. Hundreds of thousands arrived at NYC's Penn Station with the artistic talents and skilled labor that birthed the Harlem Renaissance. Their success inspired others to follow, who were ready to reap all the freedom that the Harlem Renaissance promised, only to be met first with the daily grind of work that made Harlem glimmer with the dreams of its people.

"Langston Hughes was canonizing Black life in America in the same way that William Shakespeare did, of life during England's Elizabethan era," says Taylor, who added a personal touch to the play by including some of his grandmother's stories and kept the show going by stepping in as the character of Simple. "A lot of my research here at the university and as an artist is looking at African American stories and stories of the diaspora that have been forgotten about, misrepresented, and stolen," said Taylor, "and bringing a new lens and a new perspective of our contemporary consciousness to them."

Above: Dario Prioleau, acting senior, as Leonard. Photo by Kiirstn Pagan '11. Right: LaTrelle Jamez, acting senior, as Bruce; Taylor; Terrelonge; and Prioleau. Photo by Brad Ziegler.

Above: Taylor directs the ensemble. In the background, left to right: Sumedha Bhat, student assistant stage manager; Lucas Sanchez, student assistant stage manager; Isaiah Mason Harvey, guest assistant director for Shakespeare in Harlem *and a member of the Black Classical Acting Ensemble at CSC; and Grace Shepperd, UMBC's production stage manager. Photo by Brad Ziegler.*

Top: The ensemble creates a church with luggage trunks as the altar and chairs as pews.

Left: Alex, played by Manny Rimmer, an acting junior, reads the letters he wrote about his life in Harlem.

Above: Lauren Davis, as Griot—the play's storyteller—gives respects to the ancestors that made the play possible. Photos by Kiirstn Pagan '11.

CURTAIN CALL

"You are here!" says **Lauren Davis**, in the commanding voice of her character, Griot—the play's storyteller, historian, and cultural guide—to the first audience of the fall season. Davis, a guest artist and member of the CSC's Black Classical Acting Ensemble, is radiant in golden light. Behind her, the arched glass ceiling transforms with a projection of stained glass in rich royal hues, thanks to McDonald, the show's head electrician, and the lighting team, who hung the lighting designer's light plot—a map, essentially—a month early to give lighting design students time to learn the process.

"I want to get the acknowledgment well of the ancestors into the space," booms Griot, lowering a large basket—the well—onto the floor. "I call so that you remember the grandmothers on whose shoulders we stand. I'm no longer accepting the things I cannot change. I am changing the things I cannot accept."

With that, the set morphs into bedrooms, apartments, and streets, made real by the artistry of UMBC's theatre students and their mentors. Traveling trunks become an altar, and light posts double as clotheslines. The actors tap in, weaving with the words and sounds—reading, stomping, marching, crying, laughing, inhaling—that syncopate the lives of lovers, friends, entrepreneurs, religious leaders, landlords, family, and a fledgling poet—an homage to Hughes—whose future letters are masterfully projected across the Harlem sky.

Submersive Art

SUBVERSIVE:

While many know that Charm City is home to the wizard of weird himself, John Waters, along with the quirky American Visionary Art Museum, poodle skirts, and flamingos galore, most probably don't associate UMBC with the same offbeat reputation. But take a splash in the wacky waters and you'll find Retrievers all the way down.

BY JANELLE ERLICHMAN DIAMOND

Photos courtesy of Poulomi Banerjee '16, M.P.P. '21, Cori Fordham, Steve McAlpine, Erik Whipple, and Brad Ziegler.

It's a few minutes into her Fluid Movement water ballet scene, and while most of the swimmers have dropped the red cloaks that hid their bathing suits—a nod to *The Handmaid's Tale*—and slipped into the pool as Madonna's "Like a Prayer" plays on the speaker, **Delana Gregg** stands alone. As the song reaches its crescendo—"let the choir sing"—Gregg, still in her red cape, falls dramatically backward into the water as the audience gasps and cheers.

Gregg, M.S. '04, Ph.D. '19, has worked at UMBC for more than 20 years and is currently the assistant vice provost for Undergraduate Academic Affairs, working with the Academic Success Center and with data and analytics supporting student success. But her summers are filled with swimsuits, glitter, and choreography sheets.

Fluid Movement is a Baltimore-based nonprofit performance art organization that creates joyful, inclusive, quirky, and accessible performances in public spaces, most notably their annual synchronized swimming shows in city pools. "Our art is a love letter to the city of Baltimore and its residents," says **Ashley Ball**, Fluid Movement artistic director. "We focus on inclusivity and the empowerment that comes from movement."

Baltimore City's commitment to the quirk is well documented, but you might be more surprised to learn that UMBC may be one of the best breeding grounds for pursuing and creating non-traditional art. (John Waters, the kinky, eccentric, famous Baltimore-based filmmaker, writer, and artist known as the "Pope of Trash," borrowed UMBC film equipment to make some of his early films.) UMBC, a school with an R1 classification for its high level of research and known by a national audience perhaps for the immensely successful STEM-focused Meyerhoff Scholars Program or the 2018 NCAA men's basketball upset, has a long history of stirring the artistic pot—and current Retrievers play an active role in the weird and inclusive art world of Charm City.

Water ballet gets STEAM-Y

Gregg swam in her very first water ballet in 2014—*Star Spangled Swimmer*—and has starred in, stage managed, or produced almost every ballet since including her role as a fatberg in *Sinkholes, Sewers, & Streams: A Water Infrastructure Ballet*. This past summer she added directing to her repertoire with *The Handmaid's Tale* scene in the *Dive Into Banned Books: A Water Ballet of Resistance and Joy* performance.

That her love for theatrics and performance might be nurtured at a school that has earned a national reputation for excellence in STEM education is not a surprise to Gregg. "Art and design are in everything, and you can't have theatre without science and technology," she says. Anyone who has ever built a set or mixed music can attest to that. "Performance is the ultimate interdisciplinary project, and community performance allows for all the different talents to find expression. You know how to sculpt, sew, run cable, create a program, design a logo, write a script, plan a budget, figure out how to create a waterproof, lightweight, affordable set design that can fit in a storage pod—so much geometry and engineering—we need all of those talents, along with sparkle."

Ball, the artistic director, comes from a STEM background and has her master's degree in environmental engineering. "People in STEM need art just as much as anyone else, and a Fluid Movement show is nothing short of an engineering marvel," she says.

And it's clear that this is a draw for Retrievers. "I've met so many UMBC people via Fluid Movement: former board

members like visual arts professor Timothy Nohe and Kelly Quinn—people who are committed to creating art in Baltimore with people in our communities. UMBC alumni who live in the area, like **Amelia Meman** '15; **Maria Blanca**, M.A. '15; and **Charlotte Keniston**, M.F.A. '14, Ph.D. '24—it was so great to work with them at UMBC and to create art with them in Baltimore City. Other amazing artists, like **Ann Tabor** '03 of the Mercury Theater, I met through Fluid Movement and realized the UMBC connection later," says Gregg.

"I think there is something about working at a university committed to excellence that makes space for people to be excellent in many aspects of their lives," says Quinn, managing director of The Choice Program at UMBC and a longtime Fluid Movement participant. "I'm really grateful that I have a boss who's challenged me as part of my performance plan for this year to incorporate more of my artistic work with Fluid Movement into my leadership of our organization," says Quinn. This next year she's going to add "whimsy and creativity" to her storytelling. "I think that's a testament both to Fluid Movement and my boss's understanding of the value of arts in everyday life. People at UMBC—including our leadership—really take seriously our artistic and civic lives beyond our position descriptions."

"People are validated by seeing people of all shapes and sizes and ages and ethnicities performing. My performing at age 60-plus as a full-figured, African American woman is affirming to many people in our audiences."

— JUDITH "JUDI" REYNOLDS-STOKES '87, M.A. '02

Photos by Erik Whipple

There's a place in the pool for EVERYONE

These artistic endeavors may hit the UMBC sweet spot because of the recognition that STEM and art go hand in hand, but the accessibility and inclusiveness of the programming also aligns with the Retriever spirit. "I first became acquainted with Fluid Movement while lifeguarding for Baltimore City Aquatics," says **Judith "Judi" Reynolds-Stokes** '87, M.A. '02, who works as an instructor, advisor, and career counselor at the Caroline Center, a workforce development program for adult women. "I guarded many of their water ballet shows and loved their creativity and inclusivity. I decided that I wanted to be a swimmer in one of their shows." Her Fluid Movement debut was in the 2019 show *Fluid Movement: The Water Ballet* in honor of the nonprofit's 20th anniversary.

"I think the pull of Fluid Movement for UMBC folks is that you can be a big kid having fun dancing, swimming, and acting. You get to wear pretty costumes and outrageous makeup, and the best part is you get to bring others joy and laughter," says Reynolds-Stokes.

Like Gregg, she loves that the quirky—in the best way possible—group brings her so much joy and affirmation. "People are validated by seeing people of all shapes and sizes and ages and ethnicities performing. My performing at age 60-plus as a full-figured, African American woman is affirming to many people in our audiences. It lets others know that they too can be in a Fluid Movement show and will be accepted just as they are," says Reynolds-Stokes, who swims with **Stephanie Johnson** '86, her aunt and a fellow UMBC alum. "I love to swim and dance and put on pretty things, so Fluid Movement is a perfect fit for me."

Release the KRAKEN

The American Visionary Art Museum, adjacent to the Inner Harbor, is another incubator of Baltimore quirk. The distinctive landmark and home to Fifi, a 15-foot pink poodle on wheels, is dedicated to the preservation and display of outside art and features the work of self-taught artists. (Retriever **Jess Owens-Young** '08, political science, recently showed her sports-inspired work in the museum's galleries.) That includes the Kinetic Sculpture Race, for which teams build and pedal works of art for eight hours on Baltimore City streets, including a foray into the Baltimore Harbor.

In 2011, **Steven McAlpine**, assistant teaching professor in the Individualized Study Program (INDS), was at the race, as a casual observer with his son. "Dad, can we build one of these?" he asked in awe. McAlpine had also been blown away by both the artistry of the floats and the physical effort of the 15-mile human-powered, all-terrain race for custom-built amphibious sculptures. McAlpine was trying to figure out how he could construct a 12-foot high and 30-foot-long creature at his house when he had a lightbulb moment—the answer was UMBC.

In 2014, McAlpine started the Kinetic Sculpture Project, an interdisciplinary applied learning experience funded by the Alex. Brown Center for Entrepreneurship and UMBC community engagement organization BreakingGround. Students from INDS, mechanical engineering, computer engineering, visual art, psychology, geography and environmental systems, and mathematics all came together to design, build, and race the Kraken Upcycle in the 2015 race. "You need all those perspectives and disciplines to be that innovative," says McAlpine.

In the 400-level class, students studied sustainable design methods and use of recycled materials (including plastic bottles and barrels as well as reclaimed metal and wood) that would often involve McAlpine dumpster diving—especially after the theatre department broke down a set.

That very first year UMBC's team was awarded the "Grand Mediocre East Coast Champion," and in the 10 years since, more than 100 students have passed through the class. Last year UMBC teamed up with a disability advocacy organization and took home the "Best Art Award" for IMAGE Man—in which a larger-than-life teal superhero sits in a wheelchair with a football in hand, flying over some of Baltimore's iconic buildings, such as the Bromo Seltzer Arts Tower and the Baltimore World Trade Center.

Of all the years UMBC has participated, McAlpine was especially proud of this one since it showed "the beauty of an infusion of a new partnership," that, like the water ballet, also underscored UMBC's commitment to accessibility for all.

"It's a lot of work—but unconventional art that leans a little offbeat and weird is never all work because it's playful too," says McAlpine. "I think it's absolutely essential for education to feel thrilling and full of discovery and adventure."

"I wanted to explore something less traditional, where I could express new, wacky ideas and merge creativity with engineering."

—MICHAEL WEBB, COMPUTER ENGINEERING STUDENT

Top and bottom photos courtesy of Steve McAlpine; Middle photo by Poulomi Banerjee '16, M.P.P. '21

An Out-of-the-Ordinary SPECTACLE

Dulcey Comeau, a sophomore computer engineering student, participated in the 2025 race with IMAGE Man. "The race day was super cool; we woke up early to get our capes and our helmets, and we spent some of the morning talking to people who wanted to know more about the float," says Comeau. "It was a cool experience to have people cheering you along all throughout Baltimore," she says. The race started a bit rocky—they were having some issues with the brakes—but once they were fixed, it was smooth sailing.

"Part of the race is to ride through the mud and I remember getting stuck, and it was so fun to be pushed up the hill through the rest of it," she says. "Usually as engineers, we create something for a very specific reason with specific standards for the customer, so it was cool to create something for ourselves and really see the full engineering cycle. The opportunity to have creative freedom with such little specifications made the project that much more enjoyable, and I was able to find the fun in being an engineer again."

Michael Webb had a similar experience. "As a computer engineering student, I was initially drawn to STEM-related clubs and activities like Baja SAE and UMBC's chapter of American Institute of Aeronautics and Astronautics. Those organizations are incredible for hands-on experience, but they tend to be more formulaic, focused on refining and improving designs from past generations," the sophomore says. He wanted something a little more left-field and subversive. "I wanted to explore something less traditional, where I could express new, wacky ideas and merge creativity with engineering."

The Kinetic Sculpture Race, like Fluid Movement, is a perfect blend of the new iteration of STEM—one that includes art with an emphasis on off-the-wall—and it's in that combination that UMBC excels. The UMBC team and faculty Webb ended up working alongside helped challenge some of his established systems and beliefs and consider alternative perspectives.

"The Kinetic Sculpture Race is unlike anything I had ever seen before," says Webb. "It was fun, quirky, and completely different from the structured world of engineering I'm used to. The whole event is just for fun, and the sculptures people bring in are absolutely wild: a giant poodle, giant alligators, even a platypus with a differential axle. The rules are just as wacky—you can even bribe the judges."

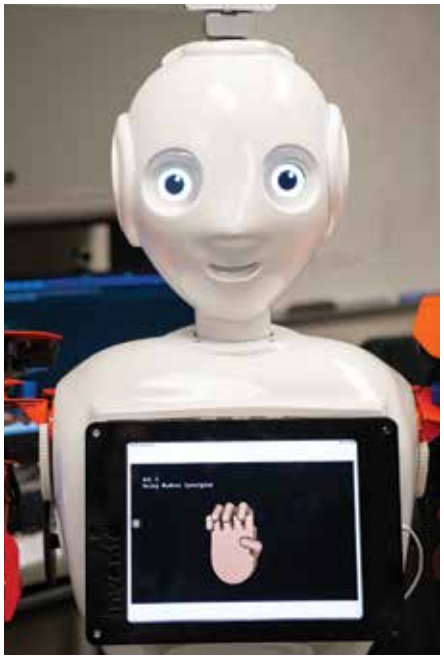
It was the wake-up he needed. "In engineering, the goal is usually performance and efficiency," he says. But in the Kinetic Sculpture Race, the goal is simply to make something imaginative and have fun trying to race it. "It's messy, unpredictable, and just laughs; a reminder that engineering and art can come together and be creative, ridiculous, and fun at once."

Strange Dance Partners

UMBC researchers are discovering building blocks of hand motions, aiming to improve physical therapy for humans and find better ways to program robots. They're turning to a novel source material for these gestures: classical Indian dance.

By Catherine Meyers

Ramana Vinjamuri, Parthan Olikkal, and Chris Dollo, a senior computer science major and undergraduate researcher in the Vinjamuri lab, stand with two robots: A Unitree bipedal robot (left) and a custom-built Mitra humanoid robot (right), produced by Invento Robotics, a company founded by UMBC alumnus Balaji Viswanathan, M.S. '06, Ph.D. '23, computer science.



Mitra was programmed to make letters of the American Sign Language alphabet by combining the mudras-derived alphabets of movement, in this case making the letter E.

Fossil records suggest that between four and six million years ago, the hominin ancestors of modern humans first stood up and walked on two legs—thus freeing their hands. Those hands went on to craft humanity's story arc: cradling babies, carrying food, fashioning and wielding weapons, carving the woodblocks used to print the first paper books, running over the keys of a piano in a Rachmaninoff concerto, and even planting a flag on the surface of the moon.

"Hands are incredibly important to humans," says **Ramana Vinjamuri**, an associate professor of computer science and electrical engineering whose work has focused on understanding how the brain controls complex hand movements.

Vinjamuri personally witnessed the debilitating impact of loss of hand movement when his mother suffered a stroke in 2014. "The very hand that taught me how to draw, how to write—I saw that hand irrevocably paralyzed. It was really hard for the family."

The experience motivated Vinjamuri to work on technologies that could help people regain lost motor functions or serve as robotic replacements for injured body parts. As part of the research, the team began searching for and cataloging the building blocks of hand motions. Further inspiration struck when Vinjamuri attended a scientific conference on the brain, hosted by the Indian

Institute of Technology Mandi in the serene foothills of the Himalayas. While brainstorming ideas for a session of the conference focused on ways that ancient Indian traditions might be applied to modern problems, Vinjamuri conceived a novel approach to deriving these building blocks—from the structured hand gestures of Indian classical dance.

A Complex and Versatile Instrument

Take a moment to consider your hands. Including the wrist, each hand has 27 joints. Some of those joints, such as the carpometacarpal joint at the base of the thumb, can move in multiple ways, such as rotating, bending, and moving toward or away from the center of the palm. The full hand encompasses billions of possible unique combinations of movements.

"To study something as complex as the hand is fascinating," says **Parthan Olikkal**, a longtime member of Vinjamuri's lab who is currently working toward his Ph.D in computer science and is deeply involved in recent research efforts.

To get a grip on the complexities, the team has turned to a concept called kinematic synergies. First extensively explored in the mid-20th century by Russian physiologist Nikolai Bernstein, synergies are essentially building blocks of movement in which the brain simultaneously coordinates multiple joint movements to simplify complex motions. The concept can be used to deconstruct a dazzling diversity of movements into a limited number of fundamental units, similar to how the hundreds of thousands of different words in the English language can be broken down into only 26 letters.

The human brain and body discover the synergies, or "alphabets" of movement, through years of training, Vinjamuri says. "The way we interact with our surroundings—the way we grasp objects or move through space—feels so natural and effortless," Vinjamuri explains. "We often forget we stumbled and fell as children while our brains and bodies were learning to coordinate."

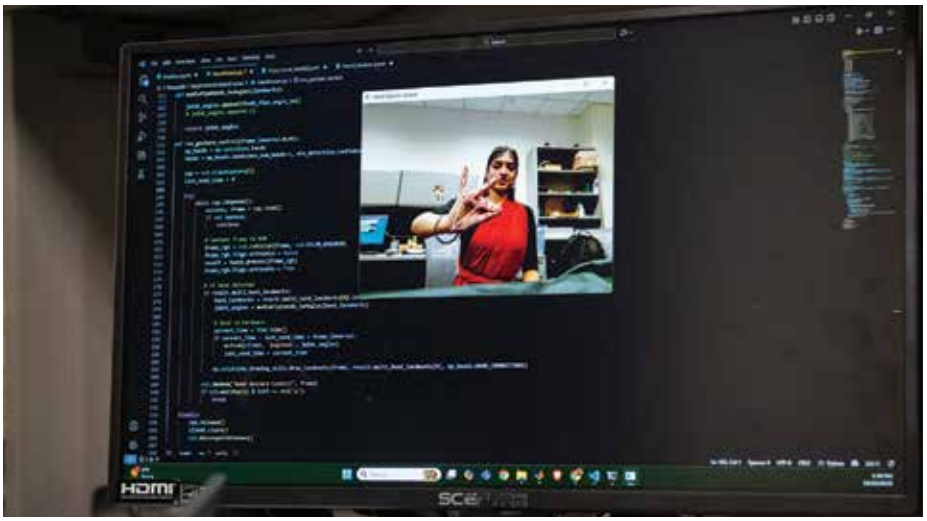
> **"The way we interact with our surroundings—the way we grasp objects or move through space—feels so natural and effortless. We often forget we stumbled and fell as children while our brains and bodies were learning to coordinate."**
>
> **— Ramana Vinjamuri, associate professor of computer science and electrical engineering**

Vinjamuri and his students have been on a quest to discover the "alphabets" of human hand movements we've collectively learned through hundreds of dropped sippy cups, hours of handwriting practice, and the like. The hope is that the knowledge could then be used as a "hack"—to more effectively train ourselves and our robotic assistants in the future.

Natural Versus Structured Movements

As part of their latest research on alphabets of hand movements, Vinjamuri and his students analyzed a dataset of 30 natural hand grasps. The movements are used for picking up objects ranging in size from large water bottles to tiny beads. The researchers found six synergies, akin to an alphabet of six letters, that when combined could account for nearly 99 percent of the variations in movements represented in the full dataset.

The first two synergies alone—specifically a movement in which all five fingers wrap around an object and a movement in which the index finger and thumb pinch together—could account for more than 90 percent of the variations. Learning (or relearning) those two movements would be essential to training a hand to pick up objects, the researchers say.



Ashwathi Menon, co-caption of the Adaa Indian fusion dance team, stopped by the lab for a photo shoot in October. Here she appears on the computer screen as the team demonstrates how to use a simple camera and software system to recognize hand movements.

Parthan Olikkal, above, at the computer, brought the concept of capturing hand movements using cameras into the lab, a key step toward making cost-effective technologies.

Mitra's hands use three types of motors for movement. The strongest motor, located at the shoulder, handles shoulder flexion and extension while a medium-torque motor at the elbow controls elbow movements. Five servo motors, one for each digit, are used to control the fingers.

However, the team also says that studying natural grasps has limitations.

"Natural grasp is unique to the motor learning history of an individual," says Olikkal. "So the way I do something might be completely different from another person." The grasps also represented limited functionality, containing only a small subset of ways that a person might use their hands.

In search of richer alphabets of movement, the researchers turned to dance, specifically an Indian classical dance form called Bharatanatyam, which originated in the southern Indian state of Tamil Nadu. The term *Bharatanatyam* is often explained as a mnemonic blend of words combining the concepts of emotion, melody, rhythm, and dance. The holistic art form employs a variety of hand gestures, called mudras, to drive the storytelling at its heart.

"Bharatanatyam is an intricate, linear, and structured dance form with a lot of precision," says **Ashwathi Menon**, a UMBC junior majoring in bioinformatics and computational biology who is co-captain of the university's Adaa Indian fusion dance team and who has been performing classical Indian dances since she was four years old. "Hand gestures are part of the storytelling. They are very precise. They can be used to point, to represent an animal, to represent praying—those are just some examples."

> **"Hand gestures are part of the storytelling. They are very precise. They can be used to point, to represent an animal, to represent praying—those are just some examples."**
>
> — Ashwathi Menon, a junior and co-captain of UMBC's Adaa Indian fusion dance team

"We noticed dancers tend to age super gracefully: They remain flexible and agile because they have been training," says Vinjamuri. "That was a huge inspiration for us when we started looking for richer alphabets of movement. With dance, we are looking not just at healthy movement but super healthy. And so the question became, could we find a 'superhuman' alphabet from the dance gestures?"

Dance-Derived Alphabets of Movement

Using the same techniques they had deployed to deconstruct the 30 natural hand grasps, the research team also analyzed 30 single-hand mudras. They found six synergies that could account for around 94 percent of the mudras' variations.

Crucially, the team then tested how well the six natural grasp-derived synergies could combine to construct unrelated hand motions—in this case 15 letters of the






Ashwathi Menon demonstrates mudras, which are copied by an Inspire robotic hand. From top to bottom the mudras are: Ardhachandra, meaning "half moon;" Chandrakala, meaning "crescent moon;" and Tripataka, meaning "three parts of the flag." The mudras can demonstrate various elements of a story, including weapons, trees, flowers, or concepts such as balance, unity, and beauty.

American Sign Language alphabet—compared to the mudras-derived synergies. The mudras synergies significantly outperformed the natural hand grasp synergies on that task.

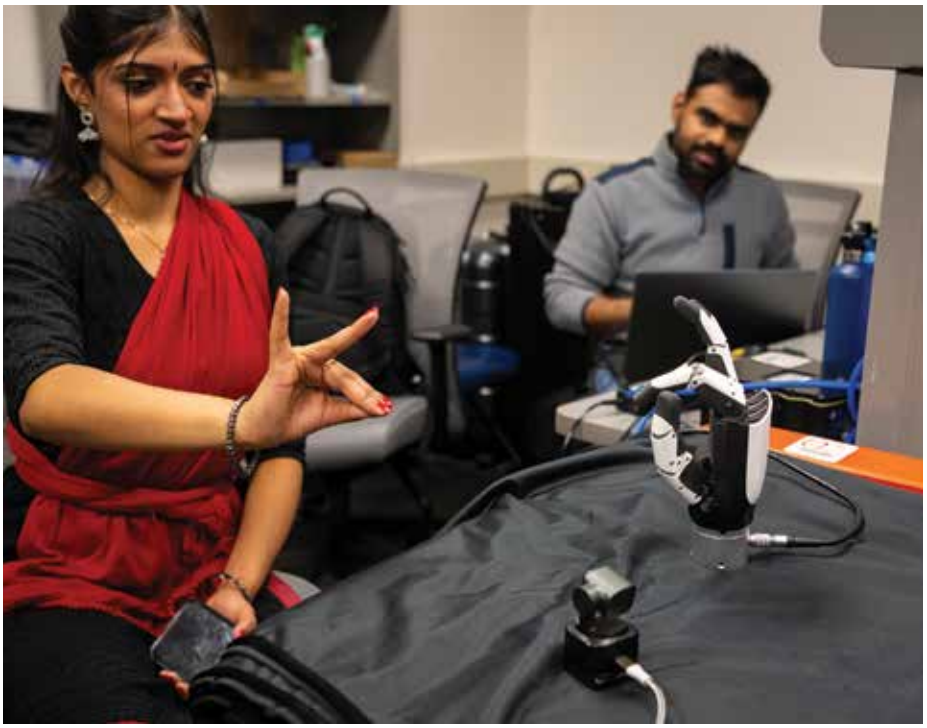
"When we started this type of research more than 15 years ago, we wondered: Can we find a golden alphabet that can be used to reconstruct anything?" says Vinjamuri. "Now I highly doubt that there is such a thing. But the mudras-derived alphabet is definitely better than the natural grasp alphabet because there is more dexterity and more flexibility."

Ultimately, Vinjamuri envisions coming up with libraries of task-specific alphabets that can be deployed depending on the needs, be it completing everyday household chores such as cooking or folding laundry, or something more complicated and precise, such as playing an instrument.

Robotic Helping Hands

Apart from advancing understanding of the fundamental roots of movement, the team has made great strides developing cost-effective and pragmatic methods of testing and implementing their ideas. When Vinjamuri first started the work, his team relied on motion-capture systems that required specialized gloves and other equipment. Now, the team uses a simple

A small statue representing the Hindu god Shiva in the form of Nataraja, the cosmic dancer. Ramana Vinjamuri keeps the statue in his office. (Photo courtesy of Vinjamuri)



Ashwathi Menon, left, demonstrates the Katakamukha mudra while a robotic hand mimics her gesture. The mudra is often used to represent actions like plucking flowers, holding a necklace, and pulling a bowstring.

camera and software system to recognize, record, and analyze movements.

"Parthan brought the concept of capturing hand movements using cameras into the lab and really developed it," Vinjamuri said. It's an important contribution to ultimately making cost-effective technologies that people could use in their homes, he says, such as a virtual system to coach people through physical therapy sessions.

The team is also successfully developing techniques to "teach" robotic hands the alphabets of movements and how to combine them to make new hand gestures. The approach marks a departure from standard techniques of teaching robots to mimic hand gestures, and toward a method rooted in our understanding of how the human body and brain work.

"It's called biomimetic learning," says Vinjamuri. "We want to watch how a human body moves, how a hand moves and works, and we want to derive those principles and apply them to machines."

The researchers are testing the techniques on a stand-alone robotic hand and a humanoid robot, each of which operates in a different way and requires a unique approach to translating the mathematical representations of synergies into physical movements.

"Once I learned about synergies, I became so curious to see if we could use them to make a robotic hand respond and perform the same way as a human hand," says Olikkal. "Adding my own work to the research efforts and seeing the results has been gratifying."

These moments of satisfaction in finding solutions to knotty problems will continue to propel the team's voyage of discovery. They may even take a moment to celebrate their successes—perhaps with a fitting high-five.

Could A Dancing Robot Improve Humans' Mental Health?

By Catherine Meyers • Photography by Kiirstn Pagan '11

Searching for an alphabet of hand movements from the gestures in classical Indian dance is not the only way that art is inspiring and guiding new research in **Ramana Vinjamuri's** lab. In a related project, Vinjamuri has teamed up with **Andrea Kleinsmith**, an associate professor in information systems who specializes in ways that computers can assess humans' emotions, and **Ann Sofie Clemmensen**, an associate professor of dance, to explore whether and how dancing robots might offer humans new tools to improve their mental health. The research piggybacks off established practices of human-to-human dance/movement therapy, which can be used to treat some mental health challenges, such as schizophrenia, anxiety, and depression.

The spark for the interdisciplinary venture was struck when the College of Engineering and Information Technology launched a program to encourage faculty to explore collaborations across disciplines to tackle big challenges.

Together, Vinjamuri, Kleinsmith and Clemmensen developed a proposal to investigate questions such as whether the coordination in a person's arms and legs could be a proxy measure of mental well-being, how existing dance therapy movements affect brain activity, and how a humanoid robot dance partner compares in effectiveness to a flesh-and-blood one.

"As a healthcare opportunity, dancing with a robot may sound weird at first," notes Clemmensen. But, she says, people who are socially isolated or struggle with the stressors of human interactions might benefit from robot partners. "As humans, we project emotions on objects, but the objects do not judge back."

In June, the team creatively demonstrated their progress to brain researchers and artists from around the world when they choreographed a technology-infused dance performance for the Movement, Music, and Brain Health National Science Foundation AccelNet meeting on the UMBC campus.

Two dancers—one representing a robot and the other a human—took turns moving around each other. Sensors monitored physiological signs of stress on the human dancer. As the dance progressed, the human was at first fearful, then curious, and finally happy—an ending the researchers hope their own project might one day also accomplish.

Left: Ramana Vinjamuri thanks Parthan Olikkal and Ph.D. student Sruthi Sundharram after the performance. Right: Dancers Juju Ayoub '25 and Sarah McHale '24 get ready to perform while Parthan Olikkal sets up equipment.

Sarah McHale '24, dance, performs in front of digital avatars.

HOW TO **LAND THE SWEETEST INTERNSHIP**

With Justin Medina, information systems, and Gabriel Jenkins, design

Tools of the Trade

1. An open mind (you'll be trying new experiences and meeting new people)
2. Strong work ethic (be ready to be tested)
3. Sunscreen and sunglasses (it IS an amusement park, after all)
4. A watch (time flies when you're having fun)

*Securing any internship is a huge accomplishment for a college student, but it's even sweeter when it combines hands-on leadership training with a few tasty perks. Senior **Justin Medina** and sophomore **Gabriel Jenkins** joined seven other Retrievers over the summer as part of the Hersheypark Leadership Development Internship program, a 12-week paid internship that allows students earn an hourly wage while also providing them with intensive leadership training—oh, and full-access passes to the park during their time off.*

Step 1:

FIGURE OUT WHAT YOU'RE HUNGRY FOR

Through this unparalleled program, students get to enjoy the monetary benefits of holding down a Hersheypark job of their choice, in addition to undergoing leadership training. Medina leaned into his love of swimming and trained as a lifeguard, learning lifesaving skills like CPR and how to handle a trauma kit. Jenkins chose to do ride operations and learned a few things about himself along the way.

"I learned I'm more reliable than I thought," he said. Jenkins was trained on Lightning Racer, the first wooden racing/dueling rollercoaster in the United States. He interacted with guests while ensuring their safety by following the set procedures Hershey Entertainment & Resorts provided, confirmed height and/or weight standards were met, checked that seatbelts and restraints were fastened and locked, and controlled the right buttons to make the roller coasters go and return with a team of other hardworking ride operators. Throughout the summer, his work ethic was recognized by his supervisors, who gave him additional responsibilities that helped him see abilities he hadn't tapped into yet.

"These students were great team members in our operations and fantastic contributors in our Professional Development Sessions, where they uncovered their strengths and how to apply them in their roles at Hersheypark and beyond," said Jacklyn Mrakovich, college relations recruiter at Hershey Entertainment & Resorts.

Step 2:

A TASTE OF THE REAL WORLD

Both Medina and Jenkins packed up their things and spent the summer living in rental housing provided at a reduced rate through the company. The time away from home and campus gave them a glimpse of what post-graduate life could possibly look like.

"It was a good taste of being in the real world, especially because I moved out there. It really teaches you how to be on your own," said Medina. He also underscores what a unique opportunity this was: "It basically gave you the 9 to 5 work experience but also has a school aspect with seminars and events. While being at an amusement park."

Once a week, interns attended various professional development trainings, with coursework and curriculum focused on teaching students to be better leaders and prepare them for the workforce. Although their work didn't directly speak to either student's majors (information systems for Medina and graphic design for Jenkins), they still learned invaluable lessons that they'll carry with them in their professional careers. Which brings us to...

Step 3:

BUCKLE UP AND ENJOY THE RIDE

"You have to go in with an open mind and not be scared you have to just take the next step forward," encourages Medina to those thinking about the program. The intangibles of this experience were the things both Retrievers will remember—the networking opportunities, meeting students from across the world, and learning how to be a good employee and a good colleague.

"It really helped me understand the process of actually doing a job and working for someone, learning how to communicate with coworkers and working with people from different backgrounds," says Jenkins.

At a roundtable discussion held as part of the leadership portion, students were grouped by major/area of interest and given the opportunity to meet employees in their field. From this discussion, Medina was able to see how he could apply the skills he learned over the summer to his future career—directly or indirectly.

"I thought more of how it could help benefit me in the future when it comes to IT. If I'm going to be working in groups or if I end up going toward a project management route, that'll help me as a leader and help me adapt to certain scenarios or circumstances."

Not realizing the program's universal draw, both Jenkins and Medina found themselves energized by getting to know their international peers—a highlight of their experience.

"We got to work alongside international employees and learned a lot about working with people from different backgrounds," says Jenkins. "My favorite part was meeting people from across the world."

"It was so cool showing my experience and seeing their experience and how we were able to share cultures," adds Medina.

Step 4:

REAP THE REWARDS

The summer wasn't all work and no play for the Retrievers. Interns got to enjoy some of the perks of living in a town known equally for its chocolate and its theme park. On their days off, they could take a dip in the pool at their accommodations, check out the employee store, or take advantage of the free access to Hersheypark.

"It just felt different going to the park as an adult and knowing I could go whenever I want. Little me would have been so excited," says Medina.

While the swag and all-access passes certainly are souvenirs the interns are grateful for, the lasting impact is what the experience could mean for their future careers.

Of recent alumni, 85 percent were engaged in applied learning like internships, research, service-learning, or leadership during their time at UMBC. Thanks to the work they're putting into their futures as a student, 93 percent graduate with firm plans for employment or graduate school within six months of graduation.

"I'm continually inspired by the way our students engage in applied learning to launch their careers," says **Marykate Conroy**, associate director of internships and employment. "UMBC students are entering the workforce prepared and in demand."

"The memories and the networking are the two things I'm walking away with," says Medina. "I have more people to reach out to and even if they're not directly in my field, they're so willing to help."

— Kait McCaffrey

Left to right: Justin Medina takes a minute to dry off for a quick photo opp; Gabriel Jenkins closes out the summer with a smile and a certificate of achievement; This might be the best view in the park—and no lines! (Photo courtesy of Hersheypark)

ALUMNI **ESSAY**

One Brick at a Time

Brick making is an inherently pay-it-forward process, says ***Marian April Glebes****, M.F.A. '09, a conceptual and mixed-media artist. In the past 10 years of her Mobile Community Brick Factory & Monument project, Glebes has made thousands of bricks and then invited community members to imprint their stories into the clay. Later, the bricks are used in mobile monuments around Baltimore City and beyond. Glebes, who won the 2025 Rubys Alumni Award through the Robert W. Deutsch Foundation for this work, asks: How can we support social and spatial change in order to build a new kind of community-driven monumental public space?*

I come to historic preservation by way of my M.F.A. in imaging media and digital arts (IMDA) from UMBC—with an additional masters degree in city and regional planning and historic preservation from the University of Pennsylvania—my home in Baltimore City, and by making bricks as public art. As an artist, a preservation planner, a homeowner, an educator, a gardener, and a community and economic development practitioner, all of my research and methods investigate how we make a place and how a place makes us.

In 2015, I was the inaugural artist-in-residence at the Baltimore Museum of Art's Patricia and Mark Joseph Education Center. The Robert E. Lee and Stonewall Jackson Confederate monument still stood across from the BMA's Spring House in Wyman Park Dell in the Charles Village neighborhood of Baltimore. Aligning with and inspired by protest in support of social and civic justice movements, The Mobile Community Brick Factory & Monument operated within these complex intersections.

Almost a decade later, my camera was the only familiar thing at Baltimore City's Department of Transportation facility on a frigid dawn in November 2023. I held it tightly as if it would prove to signify my role in providing archival documentation of a monumental move. The temperature had dropped to a mere 22 degrees, but the top-secret site was teeming with activity while the project was just beginning.

"I like to do an easy one first," the director of field operations says.

But with the removal of any Confederate monuments, these or other "monuments to hate," there is no *easy one*. In the back corner of a DOT storage yard, I watched as the historical record was made and unmade, as preservation theory and practice was suspended and turned on their side, as conservation techniques and concepts were followed to the letter and simultaneously reinvented, starting with the Roger B. Taney statue.

Baltimore's contentious monuments shipped out to a storage facility near St. Louis on their way to Los Angeles for an exhibition at The Brick (formerly LAXart). In Baltimore, I stayed with the problem through a project I started a decade ago—creating a counter-monument out of personalized, hand-made bricks.

Memory is mutable. Social contexts shift. This is the wicked problem in living heritage and what to do when it dies. I've had a unique position with singular access to process and understand this ongoing debate in Baltimore City while unofficial researcher-in-residence at the Commission for Historic and Architectural Preservation (CHAP). Each community is unique in its response on what to do with their

Confederate monuments, and Baltimore's perspective is vital to the discourse. Eric Holcomb, the former director of CHAP, invited me to the conversation, positing that perhaps it could or should be for the arts and artists to influence this unfolding preservation conundrum.

At UMBC, as M.F.A. candidates, our artwork was considered research—and therefore had to be contextualized and placed within the canon. To work responsibly, we were encouraged to know our audiences and our references and understand our place in time. Inspired by the people and places of Baltimore and by conceptual art's blurring-of-art-and-life thinking of the 1960s, The Mobile Community Brick Factory & Monument maintains the ethos of rigorous research, material gravitas, and community connection engendered by my IMDA studies. Existing in the contexts of the Baltimore Uprising, the 2017 monument removals, social practice art, and civic engagement, I interrogate our circumscribed understandings of monumentality.

Monuments exist in social contexts that have often changed dramatically since the time they were created. Because of this, their meaning does not come only from the objects themselves—or only from how people view them—but from the shifting relationship between the two. The counter-monument was birthed by artists in Germany after the fall of the Berlin Wall and has not been widely accepted or brought into practice. In 2017, as monuments were being removed from our public spaces, artists again began erecting counter-monuments in protest of white supremacy.

The Mobile Community Brick Factory & Monument is centered in process, people, and making. To date, we have engaged over 15,000 people in Baltimore, made over 2,500 unique bricks, and collected over 1,000 personal stories from Baltimore residents. The Mobile Community Brick Factory & Monument is a new kind of monument, a monument not to the past, but a monument as an act of collective power that anticipates what will come to be.

The Mobile Community Brick Factory produces handmade bricks using local hand-processed clay and historic water-struck methods. This means of brickmaking is an inherently pay-it-forward endeavor—the bricks made one day are destined for someone else's future hands. Participants personalize and inscribe their stories onto these bricks—words and messages about place, power, home, and experience. These story bricks are woodfired and become The Mobile Community Brick Monument, an ongoing series of exhibitions that create shared spaces. While the bricks become pathways, garden beds, benches—some are embedded in sidewalks in Baltimore—I collect oral histories from brick constituents through ethnographic methods. In Baltimore, over 150,000 people have visited The Mobile Community Brick Monuments, finding connections to stories that are like their own.

At The Mobile Community Brick Factory & Monument, we believe ordinary voices matter, especially those that aren't usually heard, that public space should be built by the people who use it, that heritage is alive, memory is mutable, and history is ongoing—made by daily lives. Our bricks represent pasts, presents, and futures that would otherwise remain untold and unwitnessed, built, shared, and spoken by urban residents. All are welcome and included in the process—a different kind of monument—a living space that honors the past and is built collectively by the people who live in and use our cities.

Left: Marian April Glebes, M.F.A. '09, in Center Arts and Studios in Baltimore, Maryland. Above: A stack of imprinted bricks waiting to be transformed.

CLASS **NOTES**

UMBC Class Notes is compiled by *UMBC Magazine* staff from items submitted online and by mail from alumni as well as from news articles and press releases received by the university. This edition of Class Notes contains information processed by October 24, 2025.

How to Submit Class Notes

The deadline for submitting Class Notes for the next print issue of *UMBC Magazine* is April 24, 2026. Submit your class note and photos online at umbc.edu/magazine or by email to magazine@umbc.edu.

1978

James M. Tanko, chemistry, a professor of chemistry at Virginia Tech, was conferred the title of professor emeritus by the Virginia Tech Board of Visitors in May 2025.

1981

Howard Siskind, M.S. '85, psychology, released new original songs "A Wizard's Tale" in April 2025 and "Presents Drop By" in July 2025.

1983

David Lesch, political science, is the Ewing Halsell Distinguished Professor of Middle East History at Trinity University in San Antonio. Lesch is the subject of a biography called *Dodgers to Damascus: David Lesch's Journey from Baseball to the Middle East*. The book covers his journey from being a #1 draft pick of the Los Angeles Dodgers to an academic career including 18 books and advising five presidential administrations on Middle East affairs. Lesch credits UMBC professors **Louis Cantori** (deceased) and **Robert Freedman**, for launching his successful career.

1985

Joseph Canner, computer science, graduated from the University of Baltimore School of Law in 2024. He is now working as a housing staff attorney and Equal Justice Works Fellow at Shore Legal Access in Salisbury, Maryland, where he represents low-income clients facing eviction.

1986

Elizabeth A. Kohlhepp, biological sciences, earned her doctor of medicine degree from the University of Maryland School of Medicine in 1991. She has practiced forensic and general psychiatry since 1997 in Arizona. Kohlhepp comes from a family of Retrievers, including her late sister **Nancy E. Kohlhepp** '90, psychology. Their family is especially proud of their niece, **Ula Parrill**, a junior at UMBC studying chemical engineering and cocaptain of the swim team.

1992

Lafayette F. Gilchrist, Africana studies, a jazz pianist and composer, released a new album *Move with Love*, in August 2025, and joined the legendary group Sun Ra Arkestra this year.

1995

John Chirapurath, M.S., computer science, was named president of software company DataPelago in July 2025.

Alycia Marshall, mathematics, was appointed as president of the Community College of Philadelphia in October 2025. Prior to that, she served as the college's interim president.

Sally Shivnan, English, over time became a beloved teacher and leader in the same UMBC English department where she was an undergraduate student. Shivnan will retire at the end of the fall 2025 semester after more than 20 years of service.

***Hannah Scanlan Thole** '12, with her partner Joey Thole, gave birth to their daughter, Genevieve Danielle, in March 2025.*

1998

William J. Polyniak, political science and history, is currently a vice president and special investigations unit manager at PNC Bank. In August 2025, he celebrated 32 years of service.

2002

Mina Cheon, M.F.A, intermedia and digital arts, was a recipient of the 2025 AHL-AKAA Ran Hwang Fund, to support the advancement of the Archive of Korean Artists in America and preserve the legacy of Korean diasporic artists. This will include her research project, "Here Comes the K-Fem Art Girls: The New Generation of Korean Feminist Artists of New York." Cheon also had a solo exhibit this year—*Haunted Koreas: Mina Cheon Retrospective 2005-2025*—at KODA House in New York.

Paul Michael Lurie, mathematics, has been appointed as the CEO of The Jewish Community Center of Greater Baltimore as of September 2025.

RIPPLES OF EXCELLENCE

Erwin Cabrera '10, biological sciences

"I have been in your shoes." **Erwin Cabrera** '10, biological sciences, often shares these words during monthly meetings for Stony Brook University's Simons STEM Scholars. Some students are the first in their family to attend college while others are nervous about exams or graduate school applications. All are striving for STEM careers within the program's supportive community—and these "family meetings" are one element of that support.

As the program's inaugural executive director, Cabrera isn't just leading a replication of UMBC's renowned Meyerhoff Scholars Program: He's channeling the same cohort spirit, rigorous support, and unyielding belief in students' potential that transformed him from a self-described "rough around the edges" undergrad into a champion for emerging scientists from all backgrounds. On October 29, Cabrera received a 2025 Outstanding Alumni Award from UMBC's Alumni Association Board of Directors.

Cabrera's journey began in Prince George's County, Maryland. Cabrera initially resisted considering UMBC, despite his older brother, a Meyerhoff Scholar, already thriving there. At Meyerhoff selection weekend, two days of activities for students offered admission, he changed his mind. Amid UMBC's nerdy reputation, Cabrera saw peers who looked like him, dreamed like him, and supported one another fiercely. "I could see myself there," he says.

At UMBC, Cabrera dove into research with **Phyllis Robinson**, who "gave me a lot of grace" as he stumbled early on, Cabrera says. He balanced lab work with UMBC's Major Definition hip-hop dance team with mixed success—at his request, an advisor once showed up at rehearsal to remind him of study time. Later, Cabrera, an M18, served as a Meyerhoff Summer Bridge counselor and peer mentor for younger cohorts. "This is a lot of emotional labor, but super fun," he remembers thinking of those roles, which would anticipate his career.

After UMBC, Cabrera earned a Ph.D. in neurobiology and neuroscience at the NYU Grossman School of Medicine, followed by a postdoc. But his heart was in administration. "I love science, but what I loved the most was teaching people in the lab and the impact it could have on folks' lives," he says. In 2019, he became director of the Research Aligned Mentorship (RAM) Program at Farmingdale State College. Loosely inspired by Meyerhoff principles, RAM integrated research as an undergraduate retention tool, drawing economics and business students alongside STEM majors.

In October 2022, Cabrera made his next big career move, becoming the first Meyerhoff alumnus to helm a full replication at Stony Brook, seeded by a $2.5 million Simons Foundation grant. Later, Stony Brook received its own major grant from Simons to fully develop its program. The program mirrors Meyerhoff's core—cohort-based community, intensive mentoring, Summer Bridge, and research immersion—while adapting for the local context.

"New York students are very different; they're highly independent. Some of them are regularly traveling three hours on the subway," Cabrera notes. Early challenges included combating "hyper-independence," where some scholars struggled to trust program leaders. His solution? "I upped that love factor."

Since 1988, the Meyerhoff Program has supported over 1,800 undergraduates. Alumni have earned 488 Ph.D.s, including 80 M.D./Ph.D.s, making UMBC the nation's top baccalaureate origin for African American M.D./Ph.D. recipients. Over 70 Meyerhoff alumni hold faculty posts at elite institutions like Harvard and Duke; more than 200 are currently in grad programs. Meyerhoff participants are 5.3 times more likely to pursue STEM Ph.D.s than students offered admission who decline.

This success has sparked over a dozen replications nationwide, including at Penn State, UNC Chapel Hill, Howard University, UC Berkeley, and UC San Diego, as well as replications in Canada and The Philippines. Collectively, these programs are empowering thousands of students and turning UMBC's vision into a movement.

At Stony Brook, Cabrera is a research professor in neurobiology and behavior, teaching honors courses and advising students. He also interfaces with program funders, manages the budget and staff, and supports study abroad partnerships in Kenya and Switzerland.

"It's all-encompassing," he admits. Yet the success of the program keeps him going. Last summer, three Simons Scholars interned at Harvard and two at Stanford. "As a Meyerhoff from UMBC, I know the legacy of the program," Cabrera says. "It's my job to provide that vision here at Stony Brook, where this program did not exist three years ago. To see it coming to fruition is overwhelming in the best way possible."

— Sarah L. Hansen, M.S. '15

Above: Alongside Stony Brook University President Andrea Goldsmith (second from right), Erwin Cabrera (second from left) speaks with Simons STEM Scholars. Below: Cabrera speaks with a Simons STEM Scholar at a research symposium. (Photos by John Griffin/Stony Brook University)

CLASS **NOTES**

Heather McDonold, English and psychology, is the head of corporate sustainability at T. Rowe Price, and she has earned a spot in the Women We Admire list of The Top 50 Women Leaders of Baltimore for 2025.

2003

Brian Cory Dobbs, visual arts, has a new documentary streaming on Amazon Prime Video called *Blue Planet Red*. Based on NASA's discoveries, *Blue Planet Red* presents the evidence for ancient intelligent life and supports humanity's effort toward extraterrestrial disclosure.

2004

Hadieh Shafie, M.F.A., intermedia and digital arts, currently has a solo exhibition *Hadieh Shafie: Beautiful Worlds* at The Columbus Museum in Columbus, Georgia, on view through January 18, 2026.

John Williams, financial economics, owner of a small-batch ice cream shop Good Karma Creamery, is relocating his business to a 2,000-square-foot space in Columbia, Maryland, as of May 2025, after outgrowing his previous space.

2005

Angela N. Carroll, visual arts, curated the exhibition *Jerrell Gibbs: No Solace in the Shade* at the Brandywine Museum of Art on view through March 1, 2026. Carroll also contributed an essay to the catalog for the exhibition *Chop Shop: We Are Here* at the Harvey B. Gantt Center for African-American Arts and Culture.

Jennie Thwing, M.F.A., intermedia and digital arts, has had her film *The World Said No* accepted into the 2025 NYC Independent Film Festival, the 2025 Valéncia Film Festival, and the 2025 Experimental Film Fest.

2006

Edward T. Bednarz III, M.S., Ph.D. '12, mechanical engineering, was promoted to professor at Wilkes University in September 2025. Bednarz was a senior mechanical engineer for 12 years for the U.S. Army before becoming a full-time professor at Wilkes in 2013.

__Zach Vance__ '19, MP.S. '22, and __Hunter Sugg__ '23, met through the UMBC Sailing Club in 2019 and got married in Annapolis on September 13, 2025.

2007

Matthew Loftus, chemistry, is a family medical doctor in Kenya who was a key voice in the recent campaign to save PEPFAR (President's Emergency Plan for AIDS Relief) funding. Loftus was recently awarded $45,000 in a competitive round of grant funding by Astral Codex Ten to integrate his local hospital's HIV/tuberculosis clinic with their main operations and the rest of it to continue his role as a writer and educator about foreign aid and developing-world medicine.

2008

William P. Delawter, psychology, was named Catoctin High School's varsity baseball coach in July 2025. Prior to coming to UMBC where he played Retriever baseball, Delawter played for the team he now coaches.

Theo George, Africana studies, was named director of marketing in October 2025 for Cinema United, the world's largest exhibition trade association.

2009

Uzoma Anele, biological sciences and psychology, director of GROW Pelvic Cancer Survivorship Program at the University of Louisville Health Brown Cancer Center, was named by *Louisville Business First* on their Forty under 40 class. His sister, **Ekene Anele** '22, biological sciences and public health, says she gladly followed her brother's footsteps to UMBC.

Kristina R. Gaddy, history and modern languages and linguistics, co-wrote *Go Back and Fetch It: Recovering Early Black Music in the Americas for Fiddle and Banjo*, with Grammy Award winner Rhiannon Giddens, published in 2025.

Marian April Glebes, M.F.A., intermedia and digital arts, won the 2025 Rubys Artists Alumni Grant to support The Mobile Community Brick Factory and Monument.

Aubrey Hillman, environmental science and ancient studies, was granted tenure and promoted to associate professor at the University at Albany in the Department

***Tamia Bowers** '23 in front of Castle Eltz in Wierschem, Germany, while in the country as a citizen ambassador through the Congress-Bundestag Youth Exchange for Young Professionals.*

of Atmospheric and Environmental Sciences. Aubrey and **Justin Rohrbaugh Hillman** '08, information systems, are married with a daughter.

2011

Dionne Curbeam, M.A., instructional development systems, is the vice president of information technology and chief information officer at Coppin State University. She has earned a spot in the Women We Admire list of The Top 50 Women Leaders of Baltimore for 2025.

Cortney D. Dvorak, M.A., instructional development systems, was appointed academic dean at George Washington Carver Elementary School in St. Mary's County Public Schools in June 2025.

Homira Pashai, M.A., historical studies, published a work of historical fiction, *The Eyes of the Arg: A Persian Saga* in April 2025.

2012

Hannah Scanlan Thole, psychology, academic editor for *American Journal Experts*, is excited to announce the birth of her daughter Genevieve Danielle Thole on March 15, 2025, with her partner Joey Thole.

2013

Josh Sinn, visual arts, displayed photographs in the fall 2025 exhibition *World Builders* at The Richman Gallery at The Park School of Baltimore.

2014

Charles Mason III, visual arts, had work featured in the exhibition *Brighter Skies* at CPM Gallery in Baltimore during summer 2025.

Katie Evans Rodriguez, psychology and sociology, partnered with Impact Hub and Phoenix Wellness Services to offer a free in-person workshop in summer 2025 on grief and hope for those impacted by changes in federal funding.

2016

Owen Silverman Andrews, M.A., teaching English as a second language, was awarded the Higher Education Teacher of the Year Award by Maryland TESOL in May 2024. His coedited book with **Antione Tomlin**, Ph.D. '21, language, literacy, and culture, *When We Hear Them: Attuning Teachers to Language-Diverse Learners*, was published in June 2024.

Jacob Bensen, M.A., history, is a historic preservation planner in Harford County, Maryland. In 2025, he was named cochair of the America 250 Harford Committee and will be working on promoting the commemoration of the United States Semiquincentennial in Harford County.

Shira Pearl Singelenberg, history, began her first pulpit position in 2025 as rabbi of Shir Hadash Reconstructionist Community in St. Louis, Missouri.

2017

Melissa Penley Cormier, M.F.A., intermedia and digital arts, had her work featured in a solo exhibition in the Olewine Gallery at the Ned Smith Center for Nature and Art in Pennsylvania in the summer and fall of 2025.

Kevin Hsieh, financial economics, opened a Taiwanese bao bun eatery, Bao Bei, in Rockville's Montrose Crossing shopping center in August 2025.

Shannon Phillips, health administration and policy, shared about her life with husband and New York Knicks player Josh Hart in an interview by *The New York Times* in October 2025.

2018

Tria Campbell, M.P.S., health information technology, is the CEO of Urban Health LLC and has earned a spot in the Women We Admire list of The Top 50 Women Leaders of Baltimore for 2025.

JLS Gangwisch, M.F.A., intermedia and digital arts, curated the summer 2025 exhibition *Muscle* at the Ely Center of Contemporary Art in collaboration with the New Haven Pride Center in Connecticut.

Andrea Grubmeyer, social work, currently works as a dialysis social worker, where she supports patients navigating chronic illness and complex care systems.

Christopher Kojzar, M.F.A., intermedia and digital arts, completed a public sculpture in August 2025 called *Dance in Place* celebrating Burlington's queer community, working with local high school students in Vermont.

Leah Michaels, M.F.A., intermedia and digital arts, released a film, *Moon Crab*, which was featured in the 2025 New/Next Film Festival at the Charles Theatre in Baltimore.

CLASS **NOTES**

2019

McCoy Chance, media and communication studies and music technology, M.F.A. '25, intermedia and digital arts, has video/sound art featured in the exhibition *TEN_Y/25*, celebrating the 10th anniversary of the BINNAR International Festival of the Arts in Portugal, in fall 2025.

Matt Galinn, music, started a new appointment in fall 2025 as assistant professor of music at Porterville College in California.

Zach Vance, computer science and financial economics, M.P.S. '22, data science, and **Hunter Sugg** '23, design, got married on September 13, at St. Mary's Parish in Annapolis. The couple met on campus through the UMBC club sailing team in 2019.

2020

Jason Charney, M.F.A., intermedia and digital arts, performed in the original multimedia work *Summoned into Form* with his electracoustic trio The Arm in August 2025 at The Voxel Theatre in Baltimore.

Melissa Coaxum, health administration and policy, and **Keith Ferguson Jr.** '20, information systems, celebrated their first wedding anniversary on November 15. The couple first met at UMBC, where their friendship blossomed into love.

Mariam Yaldram, history, released a new book *Tear in Your Hand* in March 2025, a thrilling supernatural tale that follows a young teen who falls for a boy with special powers.

2021

Rahne Alexander, M.F.A., intermedia and digital arts, was featured in a two-person exhibition *Back East*, with Erin Stellmon, at Current Space in Baltimore in fall 2025. *Back East* emerges from a series of conversations between the artists about their decisions to find home in Baltimore.

Safiyah Cheatam, M.F.A., intermedia and digital arts, and her collaborator Dan Talib Latif Flounders were awarded a Baltimore-based 2025 Grit Fund grant to support Islam & Print screen printing fellowships for artists to strengthen career readiness and to create a cumulative exhibition.

Danielle d'Amico, M.F.A., intermedia and digital arts, showed work in *A Night of Moving Images: Short Films by Local Filmmakers* at Rhizome D.C. on September 4. D'Amico also had work featured in the exhibition *Fervor* at Hamilton Gallery in Baltimore during summer 2025.

Katherine Washington, psychology, is working as a substance abuse counselor at both BNJ Health Services and Keys Development in Baltimore while she works toward a master's in social work from Morgan State University.

2022

Monique Crabb, M.F.A., intermedia and digital arts, had a solo exhibition of her work *I Close My Eyes to See* at Current Space in Baltimore summer 2025.

Alieh Rezaei, M.F.A., intermedia and digital arts, was awarded an artist residency at Surel's Place in Garden City, Idaho, in summer 2025.

Aubrie Zepp, sociology and political science, M.A. '24, applied sociology, is a program management specialist at UMBC's Graduate School. She shares that she comes from a family of Retrievers, including her twin sister, **Haley Zepp** '24, gender and women's studies; her older sister **Morgan Zepp** '18, English and global studies; as well as their mother, **Linda Zepp**, who retired in June 2025 after working for more than 12 years as the administrative assistant of Facilities Management.

__James Wiggins__ '75 with Evangeline Wiggins, __Harry Johnson__ '76 with Janet Johnson, __Gary Brooks__ '79 with Karen Brooks, and __David Young__ '74 with Berneda Young. The group meets annually for a "Retriever Dinner."

2023

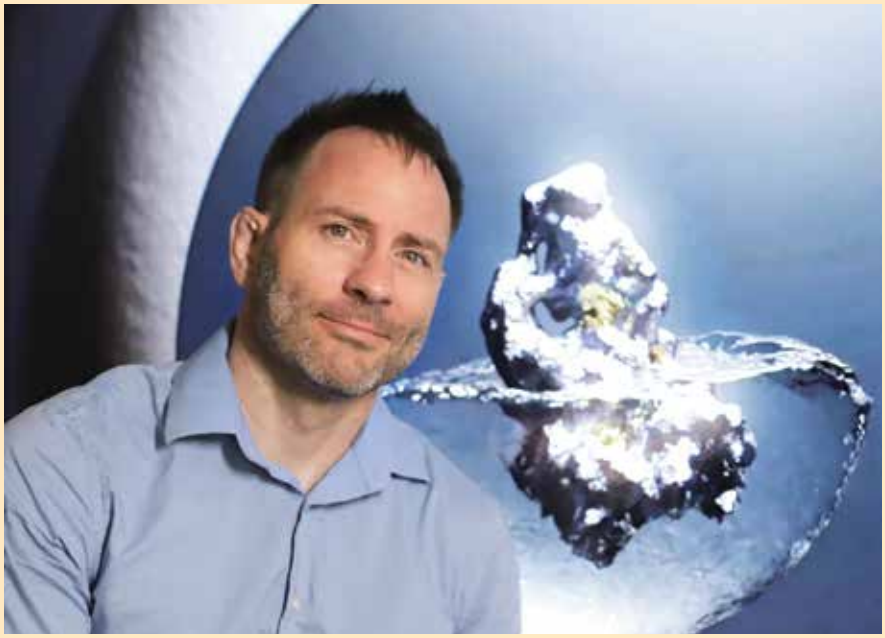
Tamia Bowers, mechanical engineering, is serving as a citizen ambassador in Germany for the academic year through the Congress-Bundestag Youth Exchange for Young Professionals. Following the fellowship, she plans to pursue graduate studies in mechanical engineering with a continued focus on research and industry applications.

Matthew Kelbaugh, modern languages and linguistics and history, published "Ukraine's and Georgia's Recognition of the Circassian Genocide: Strategic Engagement with North Caucasian Causes," in the *Journal of Caucasian Studies* in 2025. Kelbaugh is currently working as a senior English teacher at Best in Class Education Center.

Laural Paterini, anthropology, works as a conservation easement stewardship planner at the Maryland Department of Natural Resources. She's currently studying for her master's in data analytics and policy and geospatial analysis at Johns Hopkins University.

THE MOLECULAR STORYTELLER

Cameron Slayden '99, interdisciplinary studies



Inside the dark, swirling chaos of a cell, drama unfolds. A viral molecule, rendered in electric blue and menacing curves, attempts its invasion. A therapeutic compound swoops in to intercept it like a fighter jet defending its home from alien forces. This is not science fiction; it is the meticulously crafted vision brought to life by **Cameron Slayden** '99, interdisciplinary studies, founder, CEO, and creative director at Microverse Studios.

It's not enough for Slayden to just be a 3D animator. He also needs to fully understand the science—satisfying practicing scientists with his two-minute animation while compelling venture capitalists to invest millions. "I have to balance clarity of message to reach multiple levels of audience with enough accuracy so that the underlying message is unimpeachable," says Slayden.

For his pioneering work in scientific visualization, combining the rigorous inquiry of science with the persuasive power of art, Slayden was recognized this October with an Outstanding Alumni award at the 2025 UMBC Alumni Awards. This balance of artistic flair and scientific rigor is the direct result of a path galvanized over three decades ago.

As a student at Suitland High School in Prince George's County, Maryland, Slayden had yet to discover how his love of art and science intertwined. Then, during one biology class, inspiration struck while studying chloroplasts, the organelles in plant cells that are responsible for photosynthesis.

"The illustration in the textbook was awful, really ridiculous, extremely simplified," says Slayden.

Next to the illustration, however, was a cross section of the cell created from a tunneling electron microscope, which creates images at an extremely small scale. Immediately, Slayden began to notice differences between the illustration and the tunneling electron micrograph. That's when his pencil got to work. He began to sketch a more detailed illustration of the chloroplast that better represented the intricate details of the organelle.

"When I was done with that drawing, I remember realizing that that illustration had more value than just being pretty," says Slayden. "It carried real information about the world, and it was valuable to humanity in that way. And at that moment, I realized that was the kind of art that I wanted to do."

"When you're drawing something, you're bringing it through your visual cortex and through all of the processing," explains Slayden. "Your brain is creating a three-dimensional model of the object in your head, and then you're bringing it out through your motor cortex onto the paper. You come away with a much deeper understanding of the thing that you were just drawing."

Around the same time Slayden was looking into colleges, something big was happening at UMBC. Earl and Darielle Linehan, with a deeply held belief in the importance of the arts in society, had recently made a generous gift to the university to establish the Linehan Artist Scholars Program. Slayden applied in the program's inaugural year and was then offered a full ride to UMBC as one of the first cohort of Linehan Artist Scholars.

Working with his advisor, **Stephen Bradley**, associate professor of visual arts, Slayden crafted an interdisciplinary course load that seamlessly merged UMBC's stellar biology program with the visual arts curriculum. While the science courses provided the foundational accuracy, it was the friction in the art program that proved transformative.

"There was an artistic journey that I had to go through," says Slayden. "UMBC's art program forced me to dig deep and crack open my inner reservoirs of creativity and start to actually explore producing an emotional response in my audience."

However, the greatest impact UMBC had on Slayden and his career was not a class or a professor, but a fellow student—**Olivia Rogers** '99, psychology—now Olivia Slayden, his wife.

Following graduation, Slayden got a job doing medical illustrations for legal cases but found the work to be too dark. He then worked at *Science* magazine, creating medical illustrations for the publication and designing a dozen magazine covers. But after a few years, he and Olivia were both looking for a change.

So after Slayden received his master's degree in medical illustration from Augusta University in Georgia, he and Olivia founded Microverse Studios in 2005. Cameron serves as CEO and creative director while Olivia serves as chief commercial officer for the full-service scientific and medical animation studio, serving high-profile clients like Pfizer, National Geographic, and the Howard Hughes Medical Institute.

Slayden and his team specialize in taking an idea and turning it into a deployment-ready video for a wide range of audiences. They embrace metaphor—visualizing neurons as jellyfish tentacles or lightning bolts—and superimpose that artistic aesthetic onto the scientific imagery. Slayden says he's carried forward what he learned in his arts classes at UMBC, and emotional engagement is the key to the success of Microverse Studios, transforming scientific information into a memorable, persuasive story.

— Bobby Lubaszewski '10, M.P.S. '23

Above: Headshot of Cameron Slayden '99. Below: Slayden with Olivia Rogers '99 (now Slayden) at his graduation ceremony.

CLASS **NOTES**

*Sisters **Mary Kohlhepp**, **Nancy Kohlhepp** '90, and **Elizabeth Kohlhepp** '86.*

2024

Nelanne Bolima, chemical engineering, was selected for the National Institutes of Health's Oxford-Cambridge Scholars Program for fall 2025 to earn a Ph.D. in biomedical sciences.

Nancy Tyagi, M.S., computer science, co-founded PostCare.ai with fellow UMBC labmate **Surjodeep Sarkar**, M.S. '24, computer science. PostCare.ai helps doctors document faster and bill with confidence. Recently, the company won a $25,000 Concept Capital grant from TEDCO.

2025

Ahlam Khamis, M.F.A., intermedia and digital arts, had video work featured in the exhibition *FACE FWRD* at XOXO Gallery in Baltimore in summer 2025.

Alexi Scheiber, M.F.A., intermedia and digital arts, was selected to showcase her thesis work "The Dreaming World" in the Whittier Film Festival in California and the Jagran Film Festival in Kanpur, India.

FRIENDS WE WILL MISS

Rayman I. Ally Jr., '93, sociology, known as Jim to family and friends, died on May 12. He was a social worker who focused on helping young adults and those experiencing homelessness.

John Joseph Denice passed away on September 8. Denice was the comptroller of UMBC from 1975 to 1997, where he was a true champion of the school. He was also a passionate supporter of athletics, especially the women's basketball team.

Gary E. Dumer, Jr., '87, political science, died on July 8. Dumer earned a law degree from University of Baltimore School of Law and opened his own firm, Dumer and Barnes, in 2009.

Dena Hudgins Gallagher '92, economics, passed away on May 28 after a two-year battle with glioblastoma.

Ernie Kent, M.P.R. '77, died on July 8. Early in her career, she worked as a research officer in the administration of Maryland governor Marvin Mandel and then led the 1971 Maryland redistricting process and later became a lobbyist for the business community.

Kathy Kuhleman '85, American studies, passed away on September 21. Kuhleman had an insatiable appetite for learning, history, research, and reading, which led her to go back to school as an adult. She retired from Patuxent Publishing Company in June 2012.

Harold L. Levy passed away on September 25. For 30 years, Levy served as a professor of political science at UMBC, where he also directed a legal internship program and inspired countless students with his passion for political philosophy and continuing education.

James Patrick Phillips '17, economics, died on July 11. At UMBC, he was a member of the men's baseball team.

Katja Pottschmidt passed away on June 17. Pottschmidt was a faculty member in the Center for Space Sciences and Technology for almost 18 years, where she pursued her research on neutron stars and black holes.

Suzanne Rottman died on August 24. Rottman retired from UMBC as an emeritus instructor of chemistry. According to her family, she was particularly proud of founding the peer-to-peer chemistry tutoring center at UMBC, as well as her work helping develop the Meyerhoff Scholars Program.

Steven T. Russell '77, sociology, passed away on June 11 after a fight against a rare and aggressive form of Parkinson's disease.

Gary Wayne Spangler '86, computer science, died on September 28. In his spare time, Spangler enjoyed reading sci-fi novels, listening to classical music, and building model cars and trains.

Craig Spelke '12, biological sciences, passed away on May 4 after a lifelong battle with cancer.

Gregory Michael Stange, M.A. '10, applied sociology, died on August 29. After UMBC, Stange graduated as a registered nurse from the University of Maryland School of Nursing in 2015. He worked at R Adams Cowley Shock Trauma Center at the University of Maryland before becoming a travel nurse.

Jonathan Webster Weisheit '78, ancient studies, a race car driver and sportsman, died in a Formula Race Promotions race August 17 at Summit Point Raceway near Charles Town, West Virginia.

Brenda Anne White passed away on September 17. When White's children started school, she started a two-week temporary position as a cashier at the UMBC Bookstore. She was asked to stay beyond the temporary position, and she retired from the Bookstore 36 years later.

COMMUNITY MAKES ALL THE DIFFERENCE

Emily Brown ’14, M.S. ’14, computer science

*As a high schooler, **Emily Brown** ’14, M.S. ’14, computer science, dreamed of a future in STEM. Searching for a community to support her aspirations, she found the Center for Women and Technology at UMBC. Brown became a CWIT Scholar and ended up earning her bachelor’s and her master’s degrees one semester apart. After graduation, she was hired at Johns Hopkins Applied Physics Laboratory (APL). This October, Brown received the 2025 UMBC Outstanding Alumna Award.*

Q: What brought you to UMBC?

A: I applied for the CWIT (Center for Women and Technology) Scholars Program, and I found out this was a community that I really wanted to be a part of. The in-state nature of UMBC meant that I would come out of school debt-free, with the kind of support that I wanted as a woman in STEM. At my undergraduate graduation, there were nine women who graduated from the computer science program. I knew all nine, which is exactly what I had attended UMBC for—to be part of a community of other women in STEM. It meant a lot to me.

Q: Is there a faculty or staff member who helped you on your UMBC path?

A: There are three faculty members who stand out when I think of my time at UMBC. Dr. **Marie desJardins**, who has since retired, was an AI and machine learning professor. I completed undergraduate research with her, working on the new Advanced Placement computer science curriculum for the College Board so that students could submit a portfolio rather than take a test. She worked with the College Board to develop that curriculum, and I worked alongside her. My younger sister has since taken the course, and I said, “Did you know I wrote that course that you’re taking in high school now?” Her response was: “I’m not telling anyone that—that’s the most embarrassing thing ever.” I thought it was very exciting.

Dr. **Tim Oates** had an example where he would walk around the classroom floor and each tile was a different square, and he would say, “All right, I’m an AI, and I’m using reinforcement learning, and I physically step here.” He wasn’t just lecturing; he taught by physically moving his body around the classroom. He’d also use an example that if a $10 bill drops from the ceiling here, I’m incentivized as the AI to keep going back to that corner of the room, whereas if a $1 bill drops over there, then I know that’s not as useful of a place to go. In my final class with him, I rigged a $10 bill to drop from the ceiling because he had done this example over and over.

Dr. **Anupam Joshi** was my master’s advisor and he’s now the vice provost and chief AI officer, but at the time he was a professor teaching cybersecurity classes. He introduced me to the type of work that got me my first job at APL. I wrote my final research paper for my master’s degree about my APL internship experience, which was combining all of my passions.

Q: Can you share your involvement in CWIT?

A: I lived in the CWIT Living Learning Community my freshman and sophomore years and then lived in an on-campus apartment with other CWIT students. I met my best friends in the CWIT program.

When I was a CWIT student, my industry mentor was from Lockheed Martin. She did a mock interview and then brought me to the Lockheed Martin facilities for a lab tour. Those two things were both extremely memorable to me, and I carried that forward with my six years of industry mentees, some of whom then got internships at APL.

Q: Can you tell me a little bit more about your current job at APL?

A: I’m currently the assistant group supervisor for the analytic capabilities group. The group is really known for a space at APL called the Live Lab, which was started as a response to a 2009 cyber attack that APL was victim of. The lab watches cyber data coming into the lab and processes it in real time to try to be more proactive about the next attack. I actually toured the Live Lab as part of a CWIT Scholars and Cyber Scholars visit day my senior year and thought to myself, “This place is really cool. I would really like to work there someday.” The staff member running the tour that I attended was Dr. **Elisha Peterson**, who is my direct boss now.

Q: How did your UMBC degree help prepare you for your career?

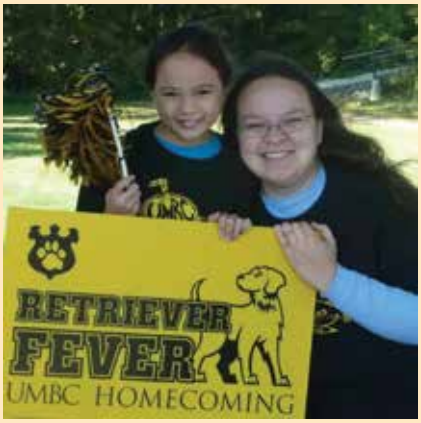
A: UMBC prepared me to anticipate that things will be interdisciplinary in nature. For example, at APL, I’ve worked with a psychologist colleague on the concept of a moral foundation. There is, of course, a computing component to parsing out the information, but there’s also a psychological component: Why does this message resonate with you, but not with me? I need to make sure that I’m taking my psychologist colleagues’ opinions and thoughts about this into account as we’re building a project.

Q: What does winning a UMBC Alumni Award mean to you?

A: My sister, who I already mentioned finds me embarrassing, has told me in the past, “You know, there’s such a thing as too much school spirit.” And I refuse to believe that. Having been given so much by UMBC and being so passionate about what I experienced in that circle on that campus, I’m so proud of UMBC. Being recognized as someone who UMBC is proud of also is incredible.

— Carrie Kvasnik

Above: Emily Brown ’14, M.S. ’14 at the 2025 Alumni Award ceremony with CWIT Associate Director Cindy Greenwood. Below: Brown with her opinionated younger sister at a Homecoming many years ago.



THEN & **NOW**

Going on Tour

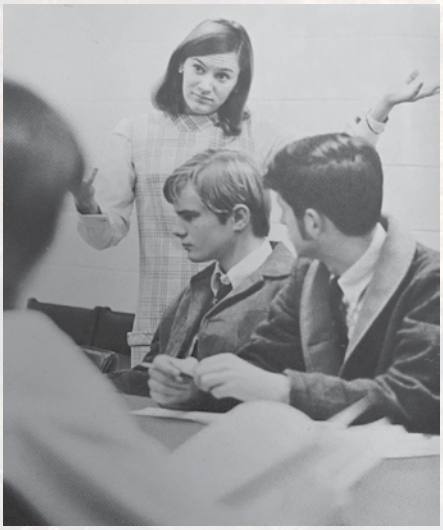
Sarah Darby regularly gets in thousands of steps walking backwards around campus. "I have never felt more burn in my legs. It's like you're using muscle groups that you don't use when you walk forward. I was sore," says the sophomore political science and psychology major after she got her dream job as a Grit Guide last spring. Generally tours last a little under 90 minutes, and Darby said that her legs adjusted pretty quickly.

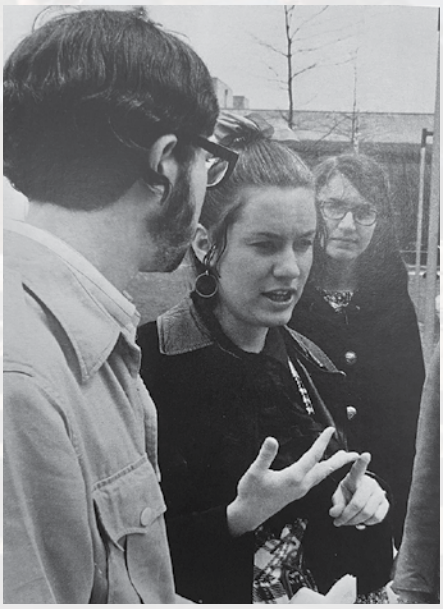
Surely in the 1960s, when UMBC only had four academic buildings and no residential life yet, the tours were quicker, or at least shorter, right? **Frances Allen Nickolas** '70, American studies, says: "Not really." According to Nickolas, one of the early tour guides on campus, the tours would usually take over an hour as the interested visitors wanted to see the new school that had sprouted up in Catonsville over the last few years.

"We would talk about the majors UMBC offered and share perspectives from our own majors," says Nickolas. "We would tell them about our experiences with the courses of study and the professors. I truly loved it because I got to meet different people all the time, and I just really enjoyed it. Because UMBC was much smaller in those days, later I'd run into some of those visitors again, but as students this time."

This is something the modern tours have in common, says Darby, a Sondheim Scholar who enjoys giving her tours an in-depth view of her majors and favorite areas on campus (The Commons and the Library). But the thing she values most is getting to know these potential Retrievers. "I have made so many genuine connections with people when I'm out on tour—I enjoy making jokes and making them laugh," says Darby. "Some people might think it's 'just a campus job,' but I love seeing the high schoolers' reactions to campus. It's rewarding in a way that none of my other jobs have been. I really love it."

—Randianne Leyshon '09





Then: Frances Allen Nickolas '70 was one of UMBC's first tour guides.

Now: Sarah Darby, a sophomore, is one of UMBC's many Grit Guides, who share about their UMBC experiences with potential students.

WILD **CARD**

Off-Road Thrills

In a sparsely wooded expanse just off Hilltop Circle, engines rev and dirt flies. Drivers whoop as they steer through trees, clear rocks, traverse ditches, and accelerate down steep hills. You might expect UMBC Police would be handing out tickets for such shenanigans—but this is officially sanctioned fun. It's all part of the annual Faculty and Staff Drive Day, hosted by UMBC's Society of Automotive Engineers (SAE) Baja racing team on Halloween this year.

On the grass, an array of single-seat, off-road vehicles sit parked, showcasing the skills of the UMBC team, whose 20 or so student members pull together to design, build, and race a new car each year. On Drive Day, adventurous UMBC community members and industry sponsors are invited to feel the thrill of hopping behind the wheel.

The club takes safety seriously. Drivers don a neck restraint, helmet, goggles, and gloves. They are buckled in with a 5-point harness and slip their hands through wrist restraints that will keep their arms inside the vehicle at all times. If things get really hairy, there's a kill switch that shuts off the engine.

Plenty of team volunteers are on hand to calm nerves, free stuck vehicles, and fill empty gas tanks. When a suspension arm on one of the cars gets bent in a run-in with a tree, the team grabs tools, lifts up the vehicle, and swaps in a new arm.

"I want two things: for people to be safe and for them to have fun," says **Shawn Pourifarsi**, a junior computer engineering major and co-vice president of the club.

For two Residential Life staffers who stopped by for the first time, the event was a great success on both counts. "It was terrifyingly fun," says **Marnea Shamblen**, an administrative assistant. "What a rush," agrees her colleague **Grace Collins**, the residential education and leadership coordinator, still savoring the adrenaline kick. "I give it a 10 out of 10."

—Catherine Meyers

UMBC Racing team members inspect the steering on one of the cars. Team members are mechanical engineering senior Allen Koshy (in the white hat), mechanical engineering junior Oscar Coreas Otero (crouching) and financial economics sophomore Matt Crum (standing).

SEE YOURSELF IN THE JOURNEY

In Academic Year 2024 – 25, **219 students** participated in study abroad, traveling to destinations such as Spain, Mexico, Italy, Japan, Ireland, and Switzerland.

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Katherine Heird
Director, Education Abroad and Global Learning

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Thank you for another year of incredible impact through your work, your spirit, and your dedication to the Retriever community. Your involvement—whether through mentoring, attending events, or sharing your story—is vital to UMBC's continued success.

To stay connected, find upcoming events, and explore new engagement opportunities, visit **alumni.umbc.edu**.

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