

UTA

**The University
of Texas
at Arlington**
Magazine
SUMMER 2022

Maverick Leader

*Jennifer Cowley is
making history as
UTA's first female
president and 10th
overall. PAGE 28*





DOG DAYS

Students take a study break to pet a very good boy on Tail Waggin' Wednesday, a monthly event that brings dogs to campus to help students de-stress between classes.

SPECIAL COVERAGE

MEET NEW UTA PRESIDENT DR. COWLEY PAGE 28

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FEATURES



Space Mavs

With academic training and myriad opportunities to develop their skills in specialized fields, Mavericks are launching impressive careers in the space industry.



Best for Vets

UTA's veteran and military-connected students benefit from a range of services centered on ensuring they achieve their academic goals.



Art Meets Science

The Hybrid Atelier, UTA's newest makerspace, provides students an opportunity to merge their technical and creative interests.



People-First Medicine

The interdisciplinary Medical Humanities program housed in the College of Liberal Arts focuses on humanizing medicine.

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Sampson Dewey, president of UTA's Native American Student Association (NASA), presents President Cowley with beaded earrings made by his mother at NASA's 26th Annual Powwow.

From the President

WHAT AN EXCITING honor it is to be reaching out to our Maverick alumni in the pages of *UTA Magazine*! As someone who grew up in Arlington and attended summer camps and classes here on campus, I have kept a close eye on the University's tremendous growth and impact. In my early days of looking for a career in academia, I always hoped I'd be able to join the faculty. I never imagined that I would one day return to my hometown to lead UTA as its president.

For anyone who has spent any time at all on our campus, one thing becomes readily apparent: UT Arlington is a special place. For me, that realization happened when I was still in elementary school. While attending orchestra camp at the University, I was able to walk the grounds, sleep in a dorm, and hang out at the student center. It was the first time I really knew that college is definitely for me. From the researcher who has that "aha" moment in the lab to the second-grader who takes in a show at the Planetarium and starts asking questions about the universe to the freshman who takes a class that leads to their lifelong passion, UTA enables us to find what inspires us and achieve our dreams.

This issue of the *UTA Magazine* is filled with stories that detail those moments. You'll read about students whose lives were changed thanks to this University, faculty making important discoveries,



BUILDING A BRIGHT FUTURE TOGETHER

and alumni who are pursuing successful and fulfilling careers. You'll see that traditions like Bed Races and Homecoming are still around and remain much loved today. You'll get a closer look at all the ways the University has grown and changed, and you'll find insight into the major impact Mavericks continue to have on the world around them.

I'm so excited to become part of UTA, to join the Maverick family and help this amazing University on its path to becoming one of the nation's most inclusive and impactful research universities. You may follow what I am up to on my Twitter account @UTAPrezCowley and by visiting my website, uta.edu/president, where you may also provide me your feedback and comments.

It is now time to chart where we will go next—what future we will imagine and how we, as a community, will come together to realize our collective vision!

Mav Up!

—Jennifer Evans-Cowley
President



Jennifer Evans-Cowley is the first female president of UTA and the 10th overall. She is also a professor of public affairs and planning in the College of Architecture, Planning, and Public Affairs. Learn more about Dr. Cowley on page 28.

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Excellence AT A GLANCE

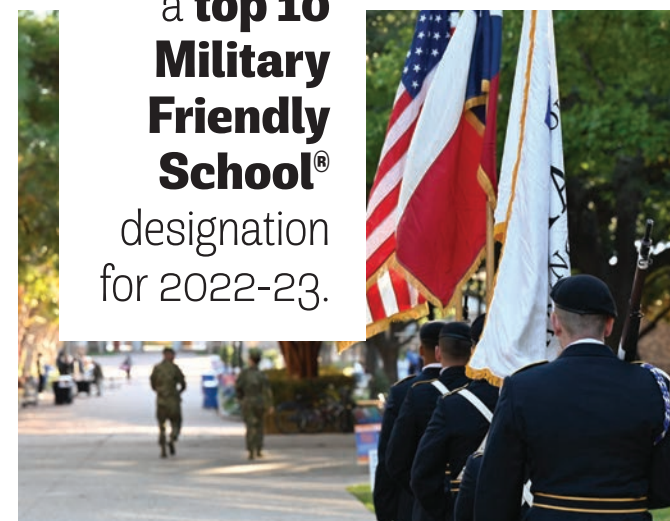


The UT System Board of Regents has appointed

James D. Spaniolo
president emeritus of UTA. Spaniolo served as UTA president from 2004-13.



The Maverick Entrepreneur Program and Award Fund earned the **Tech Titans of the Future** University Level award.



UTA received a **top 10 Military Friendly School®** designation for 2022-23.



The U.S. Environmental Protection Agency awarded UTA the **Food Recovery Challenge National Award for Leadership** for its work to reduce food waste on campus.

UTA claims **11 senior members** in the National Academy of Inventors.

Sixteen graduate programs are ranked among the nation's best; the College of Nursing and Health Innovation's master's programs earned a **top 50** designation. (*U.S. News & World Report*, 2022-23)

AFTER a three-year hiatus due to the COVID-19 pandemic, Bed Races made a triumphant return to UTA. One of the University's most beloved traditions, Bed Races has been part of UTA student life for over 40 years. This year, hundreds of students gathered to watch and participate.

Mav Roundup

Stories about the Mavericks who shape the UTA community near and far



TOP GOLF LEADER

Alumnus named first Black president of the USGA

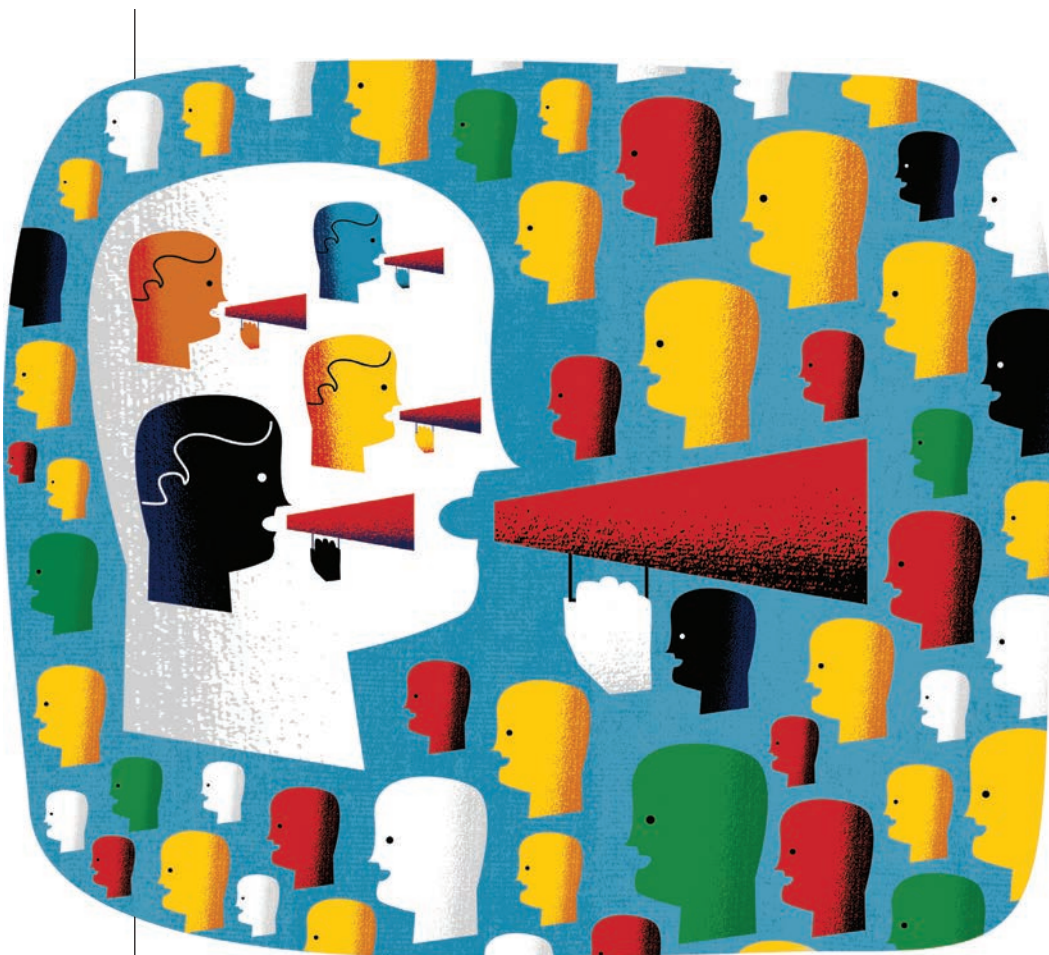
Distinguished Alumnus Fred Perpall ('98 MArch, '96 BS, Architecture) has been nominated as the U.S. Golf Association's (USGA) president-elect. In 2023, he will become the first Black president since the USGA began in 1894.

After UTA, Perpall graduated from Harvard Business School's Advanced Management Program. As CEO of The Beck Group, he leads the firm's domestic and international architectural design, planning, real estate consultancy, and construction businesses. As a design professional, Perpall helped with the implementation of Trinity Forest golf course, which connected him to the USGA.

"I'm proud of what it means for African Americans and all minorities within leadership roles in the game," he says. "I appreciate my ability to bring a diverse perspective and hope this sends a message to anyone interested in golf that there is room here for them."

Perpall notes that his relationships, the service, and his love and passion for golf allow him to play this role, "not the color of my skin."

"Golf has let me learn from other leaders, develop deep friendships and relationships, and contribute not only to the game, but to my community and to the lives of others," he says. "I hope others can learn from my journey and be inspired to join our wonderful game and amazing community."



FAKE NEWS AND PUBLIC HEALTH

Student researcher explores vaccine misinformation

Ana Aleksandric, a graduate research assistant and doctoral student in the Department of Computer Science and Engineering, is lending her expertise to the fight against misinformation and the role it plays in prolonging the spread of COVID-19. For her work, she was one of two in the world in 2021-22 to receive a competitive one-year Technology Informatics Guiding Education Reform Scholars Informatics Internship from the Healthcare Information Management Systems Society.

"Health informatics is becoming even more important now because of the pandemic," Aleksandric says. "Collecting data only from hospitals is not enough to understand what is happening at the community level."

In her research, Aleksandric is analyzing Twitter activity to investigate where COVID-19 vaccine misinformation and disinformation are likely to occur, how social media enhances misinformation, and the impact it has on public health. Her work is supervised by Shirin Nilizadeh, assistant professor of computer science and engineering, and Gabriela Wilson, professor of kinesiology, director of health informatics and public health informatics, and co-director of the Multi-Interprofessional Center for Health Informatics.

"When we put the data together, it allows public health advocates to gain the knowledge needed to intervene against misinformation and assist the public in making fully informed health care decisions," Aleksandric says.

Scholarship

Providing motivated Mavericks every chance to make a difference



Social work graduate student Allyson Miles

FOR ALLYSON MILES, scholarships provide much more than a means to make ends meet. They infuse her with the confidence to overcome a painful genetic condition while fulfilling her educational and career dreams.

The Master of Social Work (MSW) student faces a daily battle with neurofibromatosis, which causes acute scoliosis and severely restricts her range of motion. But she's determined to press on, thanks in part to receiving the Lila B. Hagins Scholarship.

"At times, I feel like I'm the only one cheering myself on as I go through this academic journey," Miles says. "This award shows that people think I can achieve this degree and are supporting me in my efforts."

Named for an influential faculty member who helped launch UTA's MSW program, the Lila B. Hagins Scholarship benefits outstanding social work students who demonstrate financial need and plan to pursue a social service career.

The opportunity to work with aging populations, particularly those with dementia or who need end-of-life care, drives Miles to succeed academically. Her thesis will explore the use of robotic pets to help dementia and hospice patients. She also wants to advocate for loved ones impacted by the stress of caregiving and loss of family members.

Assisting victims of serious crimes is another potential career path for Miles. She experienced the collective trauma of the 2019 mass shooting that killed 23 people and injured 23 others at a Walmart in her hometown of El Paso, Texas.

"I saw and felt the impact of that shooting physically and emotionally. I could not sleep for weeks," she recalls. "I would love the opportunity to support victims of major crimes such as that one."

Miles is already supporting her fellow Mavericks by serving as a Graduate Student Leader in the School of Social Work. In that role, she builds community and connections among MSW students.

About 75 alumni, faculty, and friends have made gifts supporting the Lila B. Hagins Scholarship since its establishment. Miles is grateful to be among the recipients.

"I have learned in the social work field that I can still advocate even as a disabled individual," she says. "I want to be an amazing social worker, and the support from these generous donors is moving me closer to achieving that goal."



JOANN

JoAnn Lee ('76 BA, Political Science) Retired Associate General Counsel, ExxonMobil

AS A CHILD, JoAnn Lee idolized her older brother. Since he wanted to be an attorney, so did she. But her brother changed his mind in high school, opting instead to pursue acting, a calling young JoAnn did not share. What convinced her to follow her legal dreams was the poise of lawyer and U.S. Rep. Barbara Jordan during President Nixon's impeachment hearings in 1974.

"I'd never seen a Black woman like her before," Lee recalls. "We didn't grow up seeing or interacting with attorneys, doctors, or judges. My family was just regular blue-collar folks, so hearing Ms. Jordan enunciate, speak so eloquently, and command that room sealed the deal for me."

Lee began her nearly 40-year legal career in the Harris County (Texas) District Attorney's Office, quickly ascending to chief prosecutor. She then worked as a trial attorney for Union Pacific Railroad before embarking on a 21-year stint at ExxonMobil. She retired from ExxonMobil in 2020 after serving as assistant general counsel of global litigation and associate

general counsel of its 700-person law department.

Throughout her career, Lee advocated tirelessly for equity and diversity and worked to ensure that ExxonMobil fielded litigation teams with women and minorities in meaningful roles. She also focused on in-house equity and inclusion by recruiting, training, mentoring, and championing women and attorneys of color while actively supporting organizations dedicated to those same goals.

For her efforts, Lee received the Women in Law Award for Outstanding Contribution in Gender Diversity from Chambers USA. She was also named a UTA Distinguished Alumna in 2013 and a University of Texas School of Law Outstanding Alumna in 2017. She serves on the UT Law School Foundation Trustee Board and is a Sheffield Power Circle Member of the UT Center for Women in Law.

At UTA, Lee serves on the President's Advisory Board and helps prepare future legal professionals through generous support of the Pre-Law Center Endowment, which provides hands-on learning opportunities for students.

"The professors and the pre-law curriculum at UTA required me to think more critically," she says. "The writing and analytical skills I learned contributed to my overall development and were the cornerstone of my strengths as an attorney. For that, I am forever grateful."



REAL-WORLD TRAINING

Partnership boosts student success

UTA students will receive valuable hands-on learning opportunities to advance their academic and career goals through a work experience partnership between the University and Lockheed Martin.

Launched in 2021, the UTA College Work Experience Program (CWEP) will make up to \$5.2 million available for eligible students to gain real-world employment skills by holding paid positions at Lockheed Martin Missiles and Fire Control in Grand Prairie, Texas.

The program is the second of its kind between Lockheed Martin and a university. CWEP will operate through UTA's Career Development Center, with a first-year goal of 75 student participants and capacity to expand to 300 students by the third year. Although CWEP jobs will primarily target engineering and business majors, students from all disciplines may apply, provided they meet the criteria.

"One of the most important things we can do is create a pipeline of talented students for employment at global organizations," says Career Development Center Director Lolin Martins-Crane. "Our ability to partner with Lockheed Martin Missiles and Fire Control to help drive the Dallas-Fort Worth-Arlington economy is very important. I'm excited about the potential to grow this model and make an even greater impact in North Texas."



Students, alumni, faculty, staff, their families, and the community enjoyed Homecoming 2021.

THAT'S A WRAP

Homecoming makes a big return to campus

After a hiatus thanks to COVID-19, Homecoming returned to UTA this past November with all the traditions that make it a can't-miss event, including the Street Festival and Parade, Chalk the Mall, the Chili Cookoff, and more.

Sixteen organizations participated in Chalk the Mall, where Mavericks decorated the sidewalks in front of the UTA Library. La Sociedad Hispanica won the fan favorite competition with its design that highlighted both Hispanic culture and the student organization.

In the Chili Cookoff, 12 teams battled it out for tastiest chili. The Office of Information Technology emerged as the winner.

The Movin' Mavs men's wheelchair basketball Homecoming tournament

featured a game versus Alabama, which was a rematch of last season's national championship game. The Movin' Mavs earned another victory, winning 74-39.

The last day of festivities started with over 450 Mavericks running in the Homecoming 5K and concluded with a Street Festival and Parade on Spaniolo Drive that lasted into the evening.

"As alumni return to campus, I think about everything they have accomplished because of the education that they received here, and it makes me proud to be a student at UTA," says Jarius Johnson, a communication and broadcasting junior. "One day, I hope to come home to UTA as an alumnus and be able to inspire others with stories of my successes."



ADVANCING TELEHEALTH

New telehealth certificate program launched

A new certificate program at UTA aims to prepare undergraduate students to better understand the fields of telehealth and health informatics.

“Telehealth as a delivery method for health care has existed since the 70s, but because of COVID-19, the use of telehealth and health informatics is on the rise,” says Gabriela Wilson, professor of kinesiology and co-director of the Multi-Interprofessional Center for Health Informatics (MICH) at UTA. “I believe digital technologies in health care settings are here to stay.”

Developed in collaboration with MICH, the telehealth certificate is geared toward upper-level pre-baccalaureate students and consists of three courses: “Introduction to Health Informatics,” offered each fall; “Interprofessional Collaborative Practice,” offered each spring; and “Fundamental Telehealth Skills,” offered each summer.

“This certificate will set our students apart from the competition in the workforce upon graduation,” says Kathryn Daniel, associate dean for academic affairs in the College of Nursing and Health Innovation. “Understanding of the field will help our future graduates improve health outcomes, both for patients and providers. The skills discussed and taught in the program are definitely tools health professionals can add to their arsenal of ways to care for people.”



DEGREE OF DELICIOUSNESS

Local BBQ business gets a boost

Barbecue brought Ashley Weaver to UTA.

Dayne’s Craft Barbecue was started by Ashley and her husband, Dayne, in Fort Worth. Ashley Weaver wanted to know how to best propel the business, so she earned her bachelor’s degree in public relations from UTA in 2020.

“I was fortunate to be able to put into practice many of the assignments I had,” she says. “My mock assignments in the classroom were real-life happenings with our business. My professors embraced that and supported me in putting those lessons into practice.”

Education and barbecue weren’t the only things on her mind when she was finishing up her degree, though. She was also pregnant with her fourth child. By then, though, the total commitment to barbecue was beginning to take shape.

“Barbecue was an outlet, but it was a hobby still. It’s not a cheap hobby, though,” she says. “You have fridges full of briskets. There’s only so much you can do to convince your kids to eat brisket for breakfast, lunch, and dinner.”

The Weavers began catering neighborhood celebrations and other events.



Ashley Weaver’s public relations degree helped propel Dayne’s Craft Barbecue to success.

They had pop-ups in their yard, and people started making inquiries. Now, Dayne’s is a staple in Fort Worth, and they’ll be moving to a new building in the fall. *Texas Monthly* also named it one of the Top 50 BBQ Joints in Texas for 2021. Ashley Weaver says the recognition has made them extremely busy.

How do they stay on top of it all? Dayne handles the meat, while a small team of employees helps manage the kitchen, carry the sides, and set up trays for hungry customers. And, of course, Ashley handles everything else.

EDUC 5366: Evaluating and Debunking Educational Interventions

EDUC 5366: Evaluating and Debunking Educational Interventions

WHEN IT COMES to teaching, foundational knowledge is everything. Are teachers approaching their work from the most scientifically sound standpoint? Are they making decisions appropriately based on the many variables that can influence outcomes?

“Much of what educators are taught and what teachers are forced to learn as part of professional development lacks sound scientific evidence,” says Daniel Robinson, professor and associate dean of research in the College of Education. “To improve the field, we need people who can tell the difference between what is real and what is snake oil.”

In his course, “Evaluating and Debunking Educational Interventions,” Dr. Robinson guides students through coursework that allows them to gain an understanding of educational myths

by critically examining numerous cases. Students also learn sound educational intervention research methods so they can evaluate and debunk such myths.

One of the first things the class takes a closer look at is the notion of learning styles, which is a belief that students have different styles of learning—such as visual, auditory, or tactile—and that instruction should match the given style.

“This has been taught and promoted ad nauseum in education,” Robinson says. “But there is no evidence that matching instruction to a perceived style of learn-

ing leads to better learning outcomes.”

Other myths the class looks at include multiple intelligence theory, social/emotional intelligence, and discovery learning.

“My research and writings for the past 20 years have explored the declining trend in experimental research in education and the increasing trend in observational research that does not allow for causal conclusions,” says Robinson. “I truly believe that one of the greatest things a field can do for the public is to protect the public from the field.”



SHINE

Glass Hot Shop Studio Arts Center

ALL THEM MASTERS of the elements. Students who take classes in UTA's Glass Program eventually become just that, melding sand, fire, and water to create everything from basic glass shapes to more elaborate works of art.

"Glass is something we use every single day, but we don't consider the process behind how it's made," says Justin Ginsberg, assistant professor and program coordinator. "Glasswork is an elemental, very visceral activity."

The program includes a 4,800-square-foot hot shop, a 3,000-square-foot cold shop, a kiln room, and more. Students explore the sculptural, conceptual, and functional aesthetics of glass using a variety of glassworking techniques.

As a discipline, glassworking tends to foster a strong sense of community. That connection among glass students starts early, as everyone essentially begins at the same skill level.

"Overall, it's an equalized playing field," Ginsberg says. "Everybody pretty much starts at the same place and grows together as a collective. You get a strong sense of community in that way, and that's certainly true at UTA."

This year, UTA added glass as a minor in addition to the established bachelor's and master's degree programs. Ginsberg notes that this will give students from other disciplines the opportunity to learn glasswork.

"There's something magical about our program," he says. "I have witnessed several people realize they've found the thing they want to do with their lives. It's a privilege to provide access to something that will become someone's passion."



GLASS SALE

The annual glass sale offers student and faculty work for purchase, raising funds for the program.

TEAMWORK

Faculty and students pour molten glass into a mold to help realize a student project. Almost all glass processes require a team working together.

REHEATING FURNACE

To make glass malleable and soft, it must be reheated to above 1600 degrees Fahrenheit.

FLUFFY TORCH

A torch—known to glassblowers as a fluffy torch—sits idle, ready for specific and directive heating on the molten glass.

ROLLING YOKE

A student heats glass, balancing on a rolling yoke to assist with getting the glass in and out of the reheating furnace.

PUNTY

Derived from the French word "puntil," which means "point," a punty is a long iron rod that glassmakers use to gather molten glass.

Faculty Focus

Ashley Lemke Assistant Professor of Sociology and Anthropology

AN ADVENTURER OF sorts, Ashley Lemke has traveled from the Arctic to Australia, excavating on land and under water on three continents. “I am passionate about archaeology because I love being outdoors, I love to travel, and I love to learn about the past,” says Dr. Lemke. “Learning about past cultures is fascinating because on one hand you can easily recognize how similar we all are as humans, but on the other, you can also see how different groups of people are. Archaeology combines hard and social sciences in a unique way, and there is always something new to learn.”

What accomplishment makes you proudest?

Being elected by my peers to serve as chair of the Advisory Council on Underwater Archaeology. I have been honored to work alongside colleagues and experts in underwater sciences.

What are you excited about right now?

Right now, I am most excited about a new project—looking for very old archaeological sites in the Atlantic Ocean! Right near an area called the “Graveyard of the Atlantic” due to the large number of shipwrecks there—including a Civil War

ironclad warship!—recreational scuba divers found a unique rock outcrop and the bones of now-extinct animals, such as mammoths. I’m working with those divers to explore the site scientifically to record any evidence of past human behavior there.

What are you most looking forward to?

Every summer I teach a course called “Archaeology Field School,” an upper-division anthropology class that is taught off campus at an archaeological site. We live and work at an archaeological site, and students receive hands-on

training in excavation, mapping, and curating artifacts. This summer the class will be held at Way Ranch, a private property in San Marcos, Texas, that has many archaeological sites, some 6,000 years old. Every year I look forward to getting back out into the field and digging!



A PERSONAL APPROACH

Student researcher is driven by personal experience

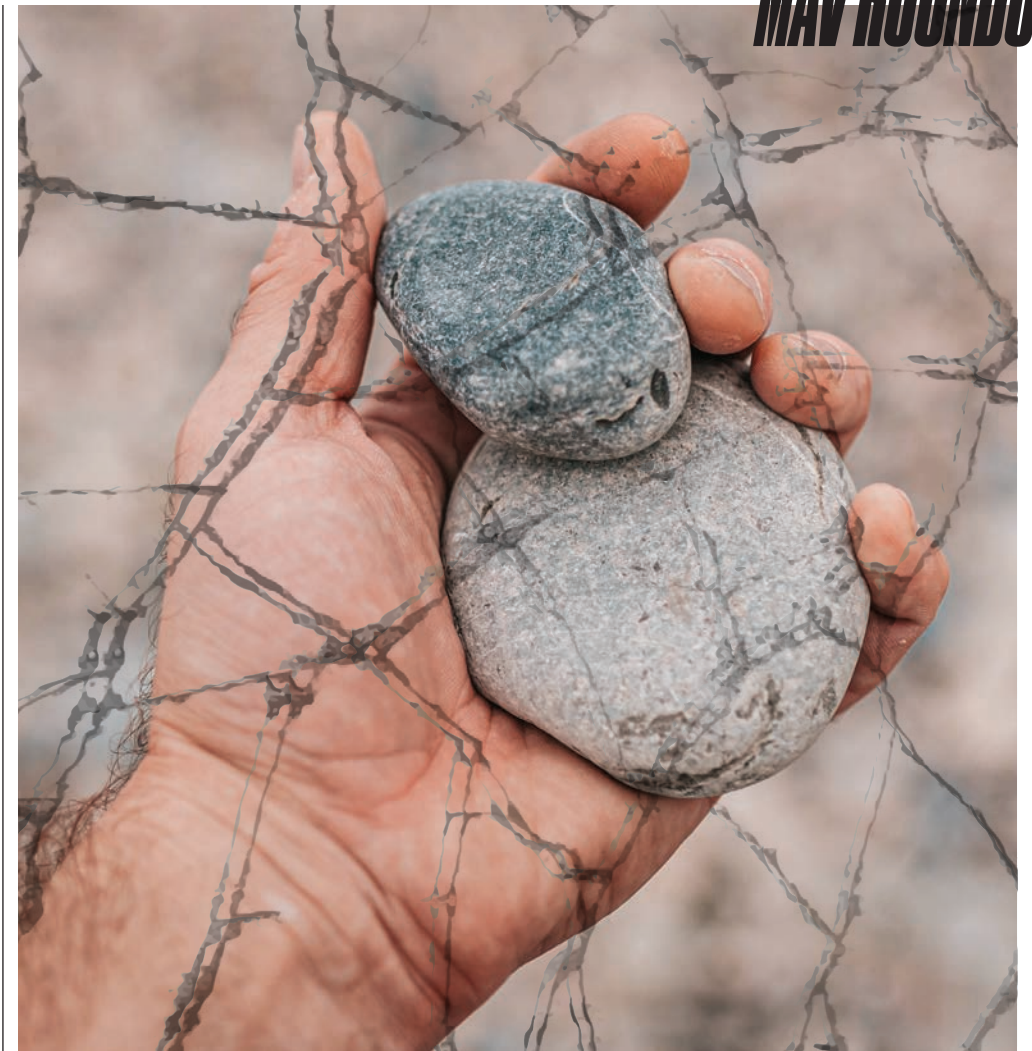
From age 12 to 17, Christine Abasi attended speech therapy to correct a stuttering disorder. Now, as an undergraduate researcher, she is using her experience to help others.

Abasi, a student in UTA’s Honors College double-majoring in psychology and communication studies, is researching the psychological causes of stuttering to gain insight into effective therapies and develop methods to reduce its stigma.

“Researchers have only been investigating stuttering for the last 60 years,” she says. “It’s an under-resourced field, and research into the cause of the disorder is inconclusive.”

This shortage inspired Abasi to conduct an interdisciplinary investigation, combining existing studies from the fields of biology, neuroscience, psychology, and communication. Her paper on the subject earned an invitation to Texas Undergraduate Research Day, where she presented her research to Texas legislators and members of the public.

With the goal of becoming a speech pathologist, Abasi will spend her final year at UTA researching approaches to reduce the stigma associated with stuttering. She plans to examine how public education and interpersonal communication between those who stutter and the people in their lives can influence how communities respond to those with speech disorders.



TRACKING A ROCKY START

Researcher explores sustainability of Mexican beach pebbles

In Baja California, Christian Zlalniski, professor of anthropology, noticed migrant and indigenous workers engaging in small-scale mining. It was essentially a type of harvesting, but they weren’t gathering fruits or vegetables; they were collecting beach pebbles. A new direction for Dr. Zlalniski’s research into labor issues spawned from there.

Mexican beach pebbles are sold in the U.S. as sustainably sourced products for landscaping, landscape architecture, and beautification projects as a substitute for mulch along walkways, gardens, and other outdoor areas. The market for beach pebbles has expanded rapidly in recent years, and Zlalniski, who is also the director of the Center for Mexican American Studies, is tracking the com-

modity chain across Mexico and the United States and investigating the branding strategies used by U.S. companies in marketing and selling the pebbles.

His work, funded by a \$255,000 National Science Foundation grant, explores the labor and environmental implications of natural resources being marketed as sustainably sourced.

“When people see products that are part of the green industry, they are looking for products that aren’t impacting the environment,” Zlalniski says. “It’s important to take it a step further and learn where the products come from, the labor conditions of the workers who gather them, and how the extraction of these natural resources impacts their communities.”



Rodrigo Augusto Dos Santos, doctoral candidate in the College of Engineering

GOOGLE SCHOLAR

Doctoral student wins national award

Teaching has transformed Rodrigo Augusto Dos Santos’ experience at UTA. Sharing what he has learned with students who might someday build upon that knowledge has broadened his views on research as well.

“I came to realize that I want to continue to be a mentor to students and others who are just getting started,” he says.

Dos Santos, a doctoral candidate in the Computer Science and Engineering Department, was one of 10 students nationwide to win a Computing Alliance of Hispanic-Serving Institutions (CAHSI) Google Dissertation Award last year. The CAHSI Google Dissertation Award recognizes promising doctoral research from computer science students from tradi-

tionally underrepresented backgrounds.

Dos Santos’ research focuses on neural networks and how they can be used for safety-related sound detection. Devices that run services such as Alexa and Nest make extensive use of neural networks, which are known to be vulnerable to cybersecurity attacks. His work involves attacking these networks to find security flaws and shoring them up to make the services using them less susceptible to hacking.

“Until those vulnerabilities are reasonably dealt with, we won’t fully realize their potential on actual practical applications,” Dos Santos says. “I hope I can somehow contribute to the rise of the next generation of researchers in this area.”



STEM DIVERSITY

Mavericks advance minority representation in physics

Jackie Baeza-Rubio and Denise Huerta know that the number of Hispanics who study physics and make their careers in the field is small. They are playing an active role in helping change that.

Baeza-Rubio, a junior in physics, and Huerta, who earned her bachelor’s degree in physics at UTA and is now a doctoral student at Notre Dame, are making unique contributions to the development of new techniques to study the neutrino, a subatomic particle with very small mass that travels at near lightspeeds and is very difficult to detect.

The pair was recently named to the board of the National Society of Hispanic Physicists (NSHP), an organization that encourages Hispanic students to study physics. Huerta will serve as the graduate student representative and Baeza-Rubio will serve as the undergraduate student representative for 2021-22.

Huerta and Baeza-Rubio, who are both first-generation college students, say they are honored to serve. Baeza-Rubio notes that it’s important for Hispanic women to have role models in science.

“Not having role models can steer Hispanic women away from STEM,” she says. “I’ve been lucky to have lots of mentors. Now with this NSHP position, I can make sure other students who faced or are facing challenges similar to mine have someone to look to for advice.”

Talk

Logan Moore
Doctoral Student
in Kinesiology

Congratulations on receiving the 2021 American Society for Bone and Mineral Research (ASBMR) Young Investigator Award! How did it feel when you learned you had won?

When I found out I had received the award, I felt a tremendous amount of joy. It was like I was hit with a jolt of adrenaline. After the initial shock wore off, I had a feeling of validation. I felt validated for the hard work I have been putting in, that I was headed down the right track, and that my research had value.

What is the benefit of this award for you and your career?

The ASBMR Young Investigator Award allowed for me to attend and present at the European Calcified Tissue Society’s Digital Master Class. This class was designed for students like me to learn and collaborate with international experts in the field of bone physiology and pathology. I was able to receive invaluable feedback on my research project, get tips on how to navigate the world of academia and industry, and create connections with senior researchers and peers.

Why were you drawn to osteoarthritis research specifically?

I was drawn to osteoarthritis (OA) research for the complexities of the disease. OA is a major public health concern, as it is the most common joint disorder. This painful and debilitating disease has no cure and limited treatment options. The causation is multifactorial, which leads to a wide range of individuals being affected.

How would you describe your work as a graduate research assistant in the Marco Brotto Laboratory?

As a graduate research assistant, I have been afforded the ability to work with world-class researchers. The lab is a highly collaborative environment, as we all work together to elevate our research. My research is geared to understanding the biological mechanisms and functionality of musculoskeletal disease and more specifically osteoarthritis. This research is focused on the relationships between joint tissues (bone, muscle, cartilage) in the onset and progression of disease.

And finally: Why is science so cool?

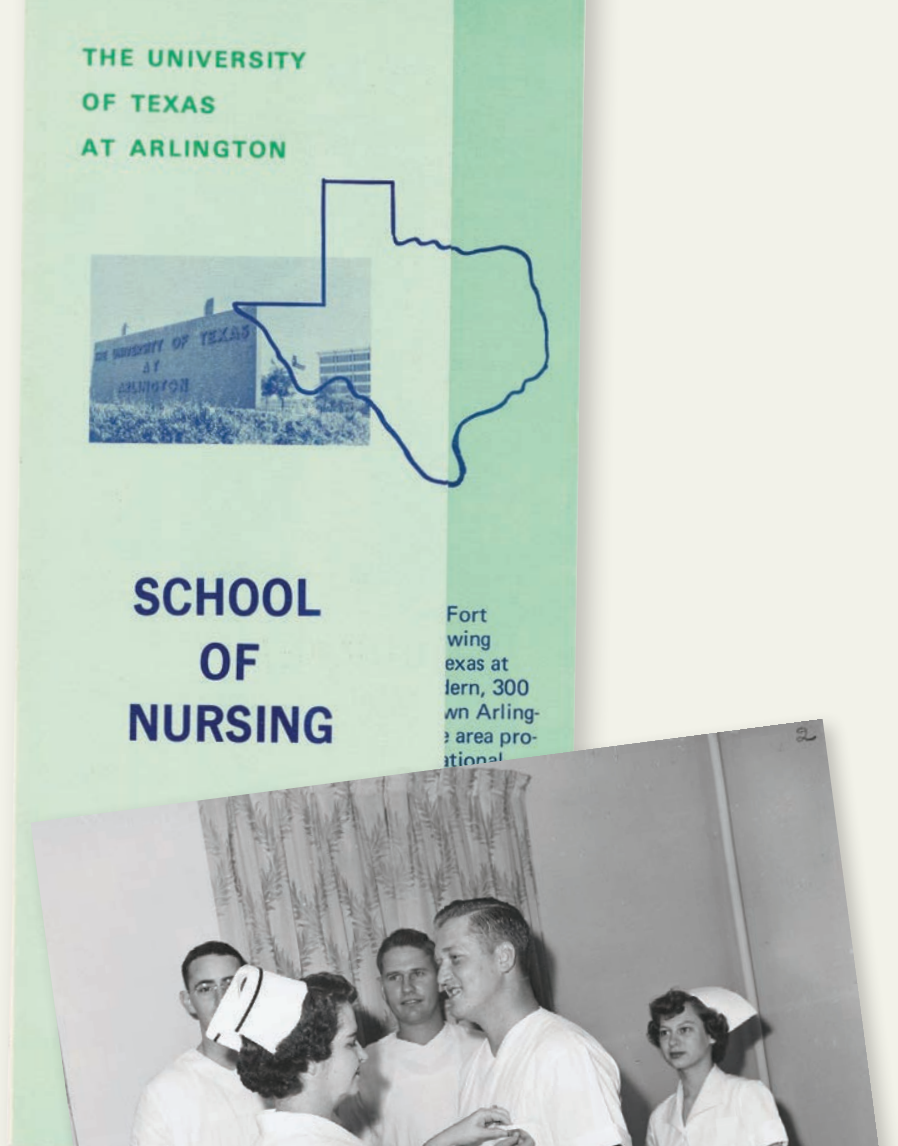
Science is in everything! If you are passionate for something and start learning more about it, then you are a scientist. It is so amazing what we can learn about! It could be anything: health, space, the oceans, sports, culture, business, and the list could go on and on. Without science, we could not be where we are today.



Collected

A Tribute to Nurses: UTA and Beyond Special Collections Exhibit

THIS YEAR, AS the College of Nursing and Health Innovation celebrates its 50th anniversary, UTA's Special Collections launched *A Tribute to Nurses*, an exhibit that explores the history of nursing at UTA and well beyond, including developments in the nursing profession, training nurses, public service during wartime, and rites of passage such as graduation and pinning ceremonies. The exhibit is on display at the Central Library through Sept. 15, 2022.



MAVERICK SWEEP

PhD students earn best
presenter awards

Three materials science and engineering doctoral students—Allison Osmanson, Mohsen Tajedini, and Jimmy-Bao Le—earned the Best Student Presenter Award at TECHCON 2021, the flagship technical conference of the Semiconductor Research Corporation (SRC).

The Top Student Presenter Award is granted to the top 10 presenters out of 160 total. It's the second straight year all three of UTA's presenters earned the award, marking a first in TECHCON history. Osmanson earned the award both years.

All three students are conducting research supported by three SRC grants. They are working with materials science and engineering Professor Choong-Un Kim, who has engaged in semiconductor packaging research for more than 25 years. The students' focus is on reliability engineering and electronic materials.

Each student was presented with a certificate, a medal, and a plaque for their achievements.

SRC is a world-class technology research consortium whose members include the semiconductor industry's biggest companies, such as Texas Instruments, IBM, Intel, and Micron.

"This competition gives a great foot in the door with these companies," says Le. "If they see research, skills, and experience that align with their needs, it gives an easy segue into a potential hiring conversation."

MAV ROUNDUP

FAST ENGINEERING

Texas Autocross marks a milestone

The Texas Autocross celebrated its 20th birthday in November, attracting 250 students—and their 33 race cars—from more than a dozen universities.

"The Autocross has been around for a long time," says Bob Woods, professor in the Department of Mechanical and Aerospace Engineering and adviser to the Formula Society of Automotive Engineering (FSAE) teams. "It's a great place where these students get together, build relationships, and share some automotive secrets."

The Texas Autocross is a part of Dr. Woods' annual build-a-racecar-from-scratch exercise via UTA Racing, a volunteer organization that has engaged students from all across the University. UT Arlington made its FSAE racing debut in

the early 1980s, and Woods has been involved from day one. He conceived Texas Autocross as a way to create an atmosphere without all the pressure behind the official collegiate competition.

"We wanted to sponsor an event where all the students could share with each other what they know, what they don't know, and what the future might hold," he says.

Though the technology has advanced and sponsor interest has continued to grow over the years, one aspect of the Texas Autocross hasn't changed.

"We still have students dedicated to figuring out how to build the best race cars around," Woods says. "Students still discover, are amazed, and develop their own ways of creating that car."





Profile

.....
Donald Shorter
 Assistant
 Professor of
 Theatre Arts
 and Dance

IN PART OF Donald Shorter's 2019 production, *Genderosity: It's Messy*, Shorter walks across a stage barefooted, on tiptoes, taking elegant strides reminiscent of a woman taking purposeful steps in high heels.

Then, Shorter, whose preferred pronouns include he/she/they, explodes forward, arms out and flying back in a burst of power, the feminine shapes turning masculine and back again. As their movements flow, the lines between feminine and masculine blur, causing viewers to consider their own perceptions of gender.

"*Genderosity* was the first time I was able to take my words, my voice, and my body and present them in a way that was real and authentic to me," says Shorter, assistant professor of theatre arts and dance. "It was a launching point for me to say, 'You know what? I do have a voice in theater.' It was very cathartic."

Since creating *Genderosity*, this interplay of gender expression and identity has been a consistent theme of Shorter's work, which includes drag, song, dance, choreography, storytelling, and improvisation. Their goal, ultimately, is to draw inspiration from their life experience to bring awareness to social injustices.

"When we look at gender as a physical form of expression, my work exposes how easy it is to throw the whole gender binary out—but how complex that is, too," they say.

Shorter—a former principal dancer with the famed Bill T. Jones/Arnie Zane Dance Company—has restaged works at universities across the United States and toured in national productions of Broadway shows such as *La Cage Aux Folles*, *A Chorus Line*, and *Hairspray*. Recently, they began exploring film-making, first with *A Guide to Breathing Underwater*, a dance film airing on the Criterion channel, and *The Power of We*, a documentary film that asks what it means to be visibly LGBTQIA+ in a suburban or rural area.

"This work has become a community," Shorter says. "It started a community that continues to give me passion and a purpose to continue exploring these narratives in dance and theater."

"When we look at gender as a physical form of expression, my work exposes how easy it is to throw the whole gender binary out—but how complex that is, too."



TOP LEFT AND CENTER: Select moments from *Genderosity: It's Messy*, Donald Shorter's one-woman show in which they use trans-formation to

explore themes of self-hatred, internalized homophobia, and self-love.

BOTTOM LEFT: A still from Shorter's short film, *A Guide to Breathing*

Underwater. Filmed entirely on a smart-phone camera with a team of three, the movie won the Grand Jury Prize at the 2018 Mobile Motion Film Festival and

was favorably reviewed by *The New York Times*.

ABOVE: Shorter explores nature through movement at a park in Arlington.



To better understand climate change, geologist Majie Fan and her collaborators are studying loess.

DIRT AND CLIMATE

Geologist looks at loess

Majie Fan, associate professor of earth and environmental sciences, was born on the Loess Plateau in northern China, a dry highland named for its loose, fine-grained, yellowish topsoil. As a young girl living in a rural province, she spent much of her time playing in the dirt that defined her home.

Today, the time Dr. Fan spends with loess—a sediment formed by the accumulation of wind-blown dust—is academic. Through a National Science Foundation grant, she and her collaborator at the University of Connecticut are investigating the nature, causes, and climate importance of loess' appearance in the western United States.

"We know that the region was under ocean water about 80 million years ago," Fan says. "How could loess, which is transported by wind and signals a very dry climate, form there?"

She said her motivation for the project is to understand the sudden, regional climate change that caused continental aridification to accumulate loess. Discovering the reason for the rapid shift could inform geologists' forecasting of subsequent environmental changes.

"We don't know what will happen in the future, but we can always learn from the past," Fan says. "Using that knowledge, we can better predict how the climate will change in the future."



BUSINESS BOOSTER

Students selected for inaugural scholar program

Five College of Business students were trailblazers in the inaugural University of Texas/Texas A&M Investment Management Company (UTIMCO) scholars program this summer.

The students—Thao Ta, Tanmay Bhatia, Bianca Perez, Isaias Curiel, and Jason Sahapatanavana—were selected for their curiosity, perseverance, and strong work ethic. Ta is an accounting student; the others are finance students. The UT Arlington contingent was part of a statewide group that included 41 juniors from 10 UT System campuses.

UTIMCO is an investment management corporation whose sole purpose is the management of investment assets under the fiduciary care of the Board of Regents of The University of Texas System and Texas A&M System Board. The scholars participated in weekly interactive virtual sessions related to their personal and professional development that provided participants with insight and advice to advance their future investment management careers.

Bhatia says professional managers and leaders shared their expertise throughout the program and helped participants improve their resumes and build a network.

"The program gave us practical advice, like how to project better during interviews," Sahapatanavana adds. "It showed us what working in the professional world was really like."



Impactful donors further Maverick excellence

AS THE SPRING 2023 semester begins, UTA will usher in a new era of interdisciplinary learning through the opening of the School of Social Work/College of Nursing and Health Innovation (CONHI) Smart Hospital Building.

The world-class facility, totaling 150,000 square feet, is possible thanks in part to the support of the University's generous philanthropic partners.

In fall 2021, the Arlington Tomorrow Foundation announced a \$1 million matching gift in support of the building. The gift serves as a dollar-for-dollar challenge grant with the goal of inspiring alumni and other members of the Maverick community to help bring the state-of-the-art facility to life.

Arlington Mayor Jim Ross, who is also president of the board of directors for the foundation, said that the foundation's gift is both a recognition of the partnership between the University and the city of Arlington as well as an investment in the city and its residents.

The Amon G. Carter Foundation is generously supporting the construction of the building's

modernized Smart Hospital through a \$250,000 gift, ensuring the facility features the latest in simulation technology. The gift will also provide greater exposure to elder care nursing at the undergraduate level, create space to replicate visits to clients in their homes, and expand offerings to include graduate programming.

Longtime UTA benefactors Dr. Al and Shalyn Clark have made a gift that will name the Dr. Al Clark and Shalyn Clark Lobby. Additionally, CONHI will name its audiovisual suite the Paul and Dody Wood AV Production Room in recognition of a gift from the United Service Association for Health Care (USA+) Foundation.

Furthermore, a contribution from the Delta Theta Chapter 102

A new home for transformative and collaborative health education and research will open on UTA's campus in 2023.



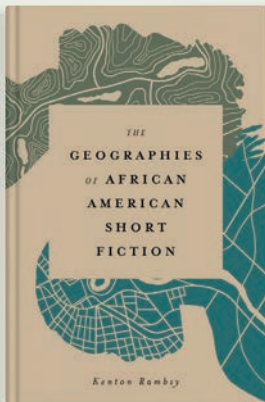
of Sigma will allow CONHI to create the Sigma Learning and Engagement Space.

These outstanding supporters are essential partners in bringing this project to life. Additional naming opportunities are available for interested donors.



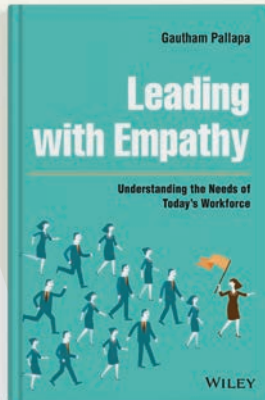
Well Read

Dive into fascinating books by Maverick authors



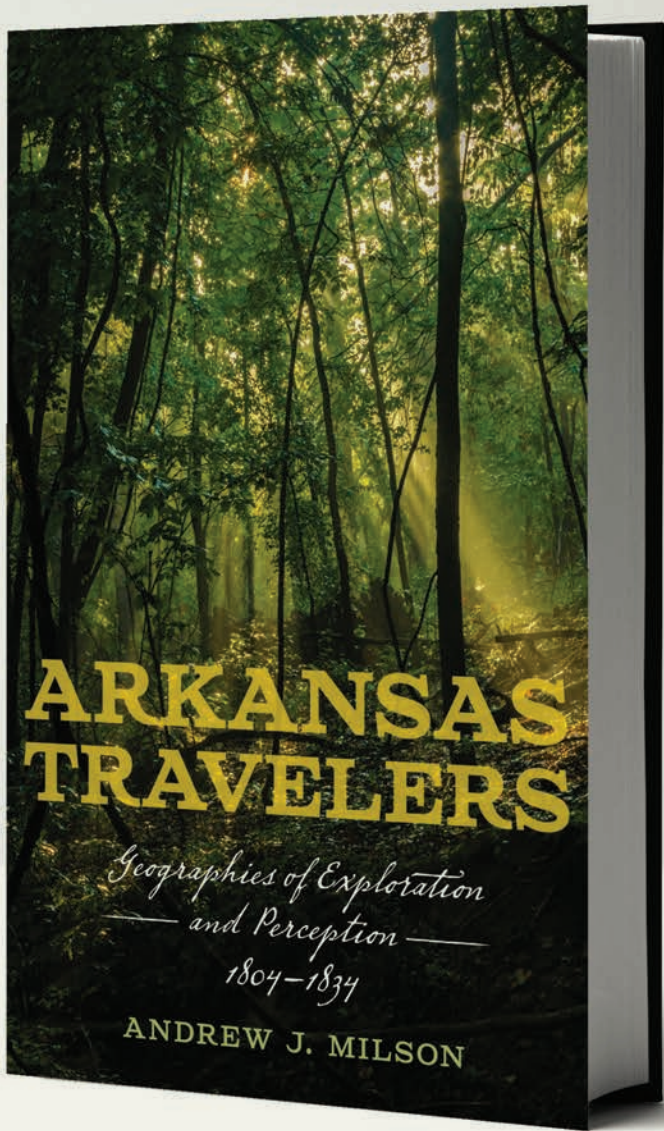
The Geographies of African American Short Fiction
KENTON RAMBSY, ASSISTANT PROFESSOR OF ENGLISH

In his new book, *The Geographies of African American Short Fiction*, Kenton Ramsby analyzes how African American authors of short stories mapped a diverse range of characters across widely varied locations, from a small town to a pond to a bustling metropolis. In doing so, Dr. Ramsby shows the ways writers illuminated how places and spaces shaped or situated racial representations. By viewing the authors as cultural cartographers, he explores how they used their story settings to inscribe their narratives with complex social histories.



Leading With Empathy: Understanding the Needs of Today's Workforce
GAUTHAM PALLAPA ('10 PHD, COMPUTER SCIENCE)

Examining the far-reaching impact of recent world-changing events, strategist and business leader Gautham Pallapa presents a road-map for leading people through adversity and empowering humans in the workplace, the home, and society. *Leading With Empathy* was selected as one of the top five business and personal finance books of 2022 by Publishers Weekly.



Arkansas Travelers: Geographies of Exploration and Perception, 1804-1834
ANDREW J. MILSON, PROFESSOR OF HISTORY

Historical geographer Andrew J. Milson brings together the travel accounts of four important early explorers of the Arkansas frontier in the 19th century. In addition to sharing their colorful tales of beautiful and dangerous landscapes, interesting people, and unique food, Dr. Milson presents maps that detail their routes as well as their environmental and cultural perceptions.

SPORTING MAVS

SUN BELT SUPERLATIVES

Women's basketball takes home top honors

In their final year in the Sun Belt Conference (SBC), the Lady Mavs left the league as champions, claiming the SBC title with a 76-61 win over top-seeded Troy. Starr Jacobs, a junior, was named MVP of the Sun Belt Tournament.

In addition, at the SBC Women's Basketball Awards, three of UTA's own took home top honors.

As voted on by head coaches, Jacobs was named the SBC Player of the Year, while head coach Shereka Wright earned Coach of the Year. Senior Terryn Milton earned Second Team All-SBC honors.

"What a great time to be a part of UT Arlington Athletics," says Wright. "I'm so proud of Starr's and Terryn's honors. They were an integral part of our success this

season."

Jacobs is the second UTA player to ever take home the conference's top honor and the first to win the award outright.

"Starr has come into our program and put a stamp on it since day one," says Wright. "She has made great strides and continues to mature every day. The sky is the limit as her game will continue to get better."

Jacobs is the first player in Lady Mavs history to finish the regular season averaging 20 points or more per game. She is also a four-time SBC Player of the Week, and she was named to the NCAA Starting 5 after a stellar performance against Appalachian State, when she scored 33 points and registered 10 rebounds, four

steals, three assists, and a block.

In her final season with the Mavericks, Milton posted a consistent performance for the team, topping her previous career highs and ranking 12th in the nation for her assist-turnover ratio of 2.59.

Coach Wright became the second UT Arlington women's coach to earn SBC Coach of the Year after Krista Gerlich earned the distinction in 2018-19. Wright led her team to a 17-7 record, including an 11-4 mark in conference play to finish the season.

"I'm incredibly blessed and humbled to be named Coach of the Year," says Wright. "All the credit goes to my staff and players for helping me be the best mentor and leader for this program."





A NEW ERA IN ATHLETICS

UTA joins the Western Athletic Conference

In January, UTA announced a new era of Maverick Athletics by officially accepting an invitation to join the Western Athletic Conference (WAC). The move took place July 1, making UTA the 15th member of the WAC and the eighth school based in Texas during the 2022-23 academic year.

“We are thrilled to join the Western Athletic Conference and help bolster a league that shares a similar strategic vision, is in the best interest of our student-athletes, and enhances the University’s profile,” says Jim Baker, UTA’s director of athletics. “The WAC’s short- and long-term objectives, goals, and overall mission run parallel to UTA’s, and we envision this move being advantageous for all parties.”

The WAC was formed in 1962 and currently comprises 13 member institutions. Incarnate Word and Southern Utah joined the league along with UTA on July 1.

“We are extremely excited to welcome The University of Texas at Arlington to the Western Athletic Conference,” says WAC Commissioner Brian Thornton. “UTA brings a stellar academic reputation and commitment to excelling athletically. Our Board of Directors was extremely impressed with UTA’s focus on the total student-athlete experience while preparing them for life beyond their time on campus. UTA will be a great addition to the league.”

RECORD BREAKERS

Indoor track and field teams finish Sun Belt strong

The UT Arlington track and field teams concluded the Sun Belt Conference (SBC) Indoor Championships in February with several tremendous performances, including some that broke UTA and SBC records. The women finished third overall with 82 total points, while the men were fifth overall with 69 total points.

Jade Bontke, a senior kinesiology major, earned a pair of gold medals and recognition as the top scorer for the meet.

The first day of the championships started with a bang as the Mavericks took control of the multi events. Bontke dominated the pentathlon, winning four of the five events to cruise to a UTA record. She also set an SBC record with her long jump win. She added wins in the 60-meter hurdles, the high jump, and the 800 meter. The only event she didn’t earn first in was shot put, where she placed second.

BIG FINISH: Track and field teams broke UTA records at the SBC championships.



Decathlete Lucas Van Klaveren pulled ahead for the men’s team, finishing with a Sun Belt and meet record of 5,734, the second-highest score all-time and good for sixth in the nation.

All-American Bryson DeBerry won his second straight SBC title in the indoor high jump, at 2.14 meters, and Abigail Kelly-Salo capped a brilliant day for field with a win in the pole vault at 3.86 meters. UTA closed the meet with a strong performance in relays, as Bontke, Shelby West, Tatyana Terrell, and Vanessa Ugorji broke the 4x400 school record with a time of 3:43.83 to earn third place.

UTA saw other great performances from Madeleine Rowe in the mile, Jarvis Miles in the 400 meter, and Jackson Cichon in the 800 meter. Iyana Gray broke a school record in the 200-meter dash with a second-place finish of 23.70.



WINNERS: The Movin’ Mavs dominated the national tournament yet again this year.

UNSTOPPABLE FORCE

Movin’ Mavs claim 10th national title, Lady Movin’ Mavs place third

The men’s and women’s wheelchair basketball teams both competed in the National Intercollegiate Wheelchair Basketball Tournament (NIWBT) on their home court in March. The Movin’ Mavs won their second consecutive national title and 10th overall, defeating the University of Alabama 67-56 before a spirited crowd.

The Movin’ Mavs entered the tournament as the No. 1 seed after finishing the regular season with a 10-2 record, while the women were the No. 3 seed. The NIWBT is a double-elimination contest, with 12 teams competing in the men’s division and six in the women’s.

The Lady Movin’ Mavs defeated the University of Wisconsin-Whitewater, 58-37, to earn third place in the tournament.

UTA hosted the tournament in College Park Center for the first time since 2014. Lisa Nagy, vice president of student affairs, says she enjoyed watching the teams’ passion, perseverance, and athleticism.

“The dedication and hard work of each of the student-athletes are the key to achieving their aspirations,” Nagy says. “We are so grateful for this opportunity to collaborate to create a positive experience for everyone involved in the NIWBT.”

SPORTING MAVS



MAKING THE GRADE

UTA’s cross country teams earn academic top spot

The UT Arlington women’s cross country team earned a spot on the All-Academic Team for the 2021 NCAA Division I Cross Country season, chosen by the U.S. Track & Field and Cross Country Coaches Association (USTFCCCA).

As a group, the UTA women secured a cumulative GPA of 3.532.

“We are very proud of our women’s team,” says head coach John Sauerhage. “It shows that our student-athletes put a tremendous amount of work into their studies, just like they do in their training.”

In order to qualify for All-Academic distinction, teams must have a cumulative GPA of 3.0 on a 4.0 scale, including the most recent grading period. Overall, 168 different programs across the nation were named All-Academic Teams by the USTFCCCA for their efforts during the 2021 season.

The women’s cross country team excelled on the field, too, placing 15th overall at the NCAA South Regional Championships to close out the season. Two athletes earned top 50 finishes: Charlotte Murphy and Valeria Diaz-Gonzalez.

MEET PRESIDENT COWLEY

A Conversation with UTA's New Leader

THIS SPRING, Jennifer Cowley became the 10th president of The University of Texas at Arlington and the first woman ever to lead the institution. She is also professor of public affairs and planning in the College of Architecture, Planning, and Public Affairs. Before joining UT Arlington, Dr. Cowley served as provost and vice president for academic affairs at the University of North Texas and in various leadership positions at The Ohio State University, including vice provost for capital planning and regional campuses, associate dean of the College of Engineering, and head of city and regional planning. She is a fellow of the American Institute of Certified Planners and an alumna of Texas A&M University and the University of North Texas.



Welcome back to Arlington! What is it like to return to the city you grew up in?

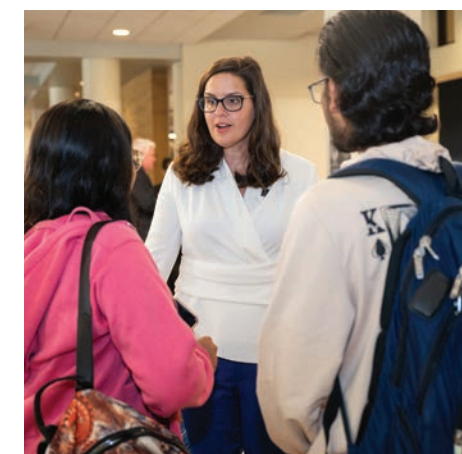
It's super exciting! I'm finding places that I loved when I was growing up and new places to explore. In particular, it's amazing just seeing how much the UTA campus has changed along with the area around it, and seeing how the downtown area is becoming much more vibrant. I think all of these changes have added to the appeal for prospective students and potential faculty and staff to consider UTA. I'm really looking forward to getting to know all the people in the community.

What experiences did you have with UTA growing up?

One of my first experiences with UTA was going to sleepaway orchestra camp, and back then, it was the most exciting thing ever. It was really, really fun to have those early experiences of connecting to a university—of getting to eat in a student union, play tennis, and of course perform on a big stage. When the opportunity arose, I had my son enjoy these same opportunities at UTA through summer camps. It's such a great part of the learning experience to have the convenience, benefits, and opportunities of a vibrant, top-tier research university right in my hometown.

What made you want to take on the role of president of UT Arlington?

UTA has been on my radar for quite some time. I saw it as a university on



the rise, as a place with serious aspirations, a belief in its potential, and a commitment to diversity and inclusion. When the presidency opened up, I thought it could be the right time for me to join the UTA community. And, you know, the stars aligned, and I'm just excited to get to have the opportunity to lead this wonderful Tier 1 institution.

What are your first priorities as president?

The No. 1 priority is to fill a number of leadership vacancies, and I am confident we're going to find some great team members who will be a perfect fit for us. I am also very much looking forward to getting to know the campus community and engaging with our students, faculty, staff, and our

alumni. Together, we will be able to foster an inclusive culture that improves upon the opportunities for our students' success, accelerate UTA's research excellence, and build upon UTA's relationships throughout the DFW Metroplex—one of the nation's fastest-growing and economically thriving metropolitan areas.

With your background in city planning, do you see parallels between your expertise in that field and the skills you'll be using in your role as president of UTA?

Absolutely. City planners are trained to be systems thinkers, and when you think about the complexities of a campus, campuses are a lot like small cities. As a planner and builder,

I have a unique ability to quickly assess the landscape and, in collaboration with the diversity of stakeholders, figure out together where we need to go and, more importantly, how we will get there.

How do you see UTA's role within Arlington and in our region? How might that role evolve going forward?

UTA is an important part of Arlington and North Texas. We have excellent relationships and collaborations in the city on a number of fronts, and I look forward to continuing to strengthen those. Beyond Arlington, if you consider the population of Dallas-Fort Worth, we are bigger than many states in this country. How much we're growing is just

phenomenal, and I want to make sure we're taking advantage of that growth. Continuing to expand our impact in Fort Worth and the surrounding communities will certainly be a priority.

What can you share with us about your family and/or life outside of work?

I have a husband named Jon, a 17-year-old son named Nathan, and a pet chinchilla named Chinch who has been in our family for about eight years now. Our family is very much into Lego-building. My husband and son are into Star Wars and some of the other action sets. It is probably no surprise that as a city planner, I like the city sets. **UTA**



MAVERICKS IN



Equipped with a strong foundation in science and math and advanced skills in specialized fields, UTA students are ready to launch into impressive careers in the space industry.
BY LINSEY RETCOFSKY

Italian astronomer Galileo Galilei is often credited as the first human to point a telescope toward the cosmos. He used the instrument to discover rocky craters on the moon, prompting philosophical questions about life beyond Earth. Since then, scientists have discovered thousands of exoplanets beyond our solar system and estimate that there are billions more in our galaxy alone.

Astronomers searched the skies from ground level, capturing images of the dust and light beyond our atmosphere. Technological advancements of the 20th century propelled our investigations to the furthest corners of the universe. As we launched mechanical and manned missions into orbit, nations competed for prime real estate on the final frontier. Within decades, space exploration became a global industry.

Despite all that advancement of knowledge, questions about our existence remain. Is humankind alone in the universe? How did our existence begin? What exactly is the universe made of?

Employed by companies at the leading-edge of astronautics, UTA students and alumni work to answer these questions and far more, seeking knowledge and resources that will benefit humanity. From collecting soil samples on Mars to analyzing the chemical composition of Venusian clouds, Maverick innovators are helping to decode the mysteries of the universe.

SPACE STORMS

In December 2021, NASA launched its most powerful telescope to date, the gold, mirror-plated James Webb Space Telescope. Its mission is to catch glimpses of light from ancient, cloudy galaxies and uncover hidden truths about our universe. Like air traffic controllers before a plane's ascent, two days before the Webb Telescope launch, NASA's crew was watching the weather—in outer space.

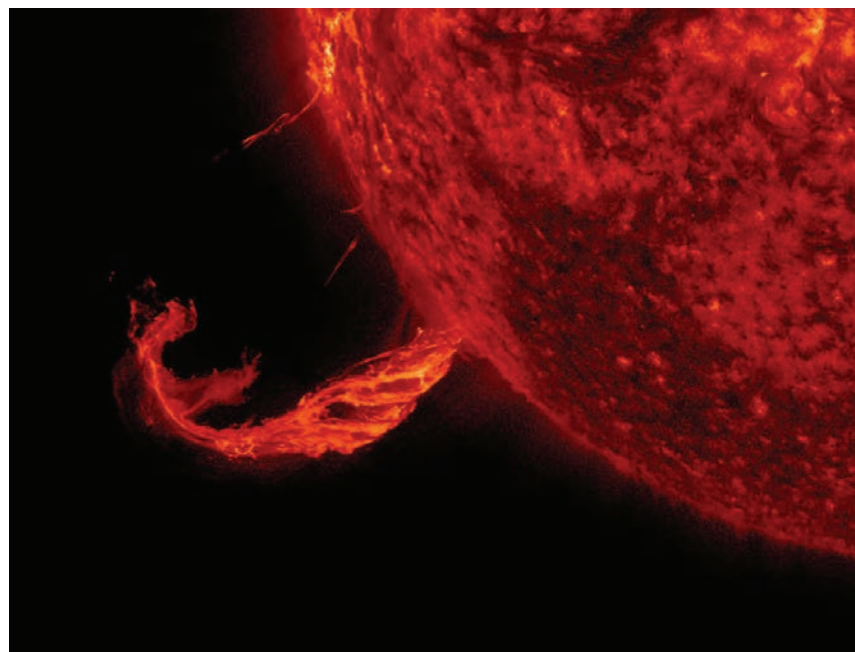
Approximately one to four times per day, massive tangles of plasma and magnetic field explode from the sun's surface in a process called a coronal mass ejection (CME). The twisted, fiery ropes slingshot billions of tons of solar material at speeds up to 1,800 miles per second, reaching the Earth in as little as one day. When they are powerful enough, CMEs collide into Earth's atmosphere, creating intense geomagnetic storms that threaten to disturb human technological systems. Strong electrical

currents can interfere with satellite communications, radio signals, and electrical grids.

To mitigate such disturbances, students in UTA's Department of Physics work alongside their professors on research collaborations with NASA, the Air Force, and institutions across the nation. Through these partnerships, young researchers become problem-solvers for the most urgent issues in atmospheric science.

Under the leadership of Yue Deng, professor of physics, students contribute to NASA's Geospace Dynamics Constellation mission, a satellite investigation of how the boundary between Earth's atmosphere and space redistributes external energy on a global scale. The team supports the successful launch, operation, and return of the mission's spacecraft by providing state-of-the-art physical models and ground-based observations. Information provided by the mission will improve scientists' ability to specify and forecast space weather

When strong enough, coronal mass ejections like the one pictured here can impact satellites, radio signals, and electrical grids.



THE RIGHT STUFF

From investigating Venus to studying space weather to monitoring cosmic communication, Mavericks are playing active roles in exploring our universe.



LORI GLAZE

Director, NASA's Division of Planetary Science

'89 MS, '85 BA, Physics

As director of NASA's Division of Planetary Science, Lori Glaze oversees the agency's flight missions and scientific research that address fundamental questions of solar system formation and evolution, including understanding planetary environments that can support life. But there is one planet that truly captivates her: Venus.

At the formation of our solar system, Venus was akin to Earth. But as Earth evolved into a home for living inhabitants, Venus matured into a toxic wilderness.

"Venus has a thick, noxious atmosphere filled with sulfur dioxide, and the air pressure at ground level is similar to the pressure almost a mile below Earth's ocean," Dr. Glaze says. "It's an enigmatic place. How did the two planets evolve so differently?"

To answer that question, Glaze led a team of scientists and researchers at Goddard Space Flight Center through nearly a decade of mission concept development. The team proposed the deployment of a small probe containing an analytical chemistry laboratory that would dive from the planet's yellow clouds to its volcanic surface, making precise measurements of noble gases and other elements to understand why Venus' atmosphere differs from Earth's. The project, the Deep Atmosphere Venus Investigation of Noble gases, Chemistry, and Imaging (DAVINCI) mission, is set to launch by 2030.



PAULINE DREDGER

Newkirk Fellow, NASA Graduate Research Fellow

PhD candidate, Physics

Most people think of outer space as a dark void. For Pauline Dredger, space is a busy corridor where high-speed particles and electrical currents travel between the sun and Earth.

"To the untrained eye, the solar system can seem like a dull place," she says. "People think of space as empty, but it's full of active elements whose interactions are really fun to observe."

Dredger is part of the growing international scientific community whose mission is to improve the forecasting and mitigation of the effects of space weather events on Earth's magnetic field and technological systems. When she's not conducting doctoral research in the lab at UTA, you'll likely find her at work in one of two national research centers.

As a Newkirk Fellow at the National Center for Atmospheric Research, Dredger is conducting research at the agency's High-Altitude Observatory, investigating the closure of electric currents created when supersonic solar wind impacts Earth's magnetic field. The appointment runs concurrently with her work as a NASA Graduate Research Fellow at the Goddard Space Flight Center.

Her busy schedule matches her curiosity. Although dedicated to space physics research, she also has a strong interest in particle physics. If she could answer one question about our universe it would be, "What is dark matter?"



IAN LIM

Computer Scientist, NASA Glenn Research Center

'21 PhD, Mathematics

Contrary to popular belief, Ian Lim does not have an archive of secret extraterrestrial photos stored on his work computer at the NASA Glenn Research Center.

As a computer scientist at what he calls the "friendliest place to work," Dr. Lim spends his days managing data science projects for the center's chief information officer. His current focus is to collect and provide data on the agency's space communications. Whether or not he has tapped into any alien conversations, he couldn't say, but the job always satisfies his mathematical fervor.

Lim began his college career as an engineering major, but when it was time to say goodbye to his mathematics classes, he just couldn't do it. After filling out a few add/drop forms, Lim spent the next nine years studying the subject he loved most. In his fourth year of UTA's mathematics doctoral program, he stumbled across a NASA internship description that described his skills exactly. Within a year, he had converted that internship into a full-time position.

For those considering life after a mathematics degree, Lim's advice is simple.

"Follow your interests, and look for extracurricular opportunities to expand your skill set while you're in school," Lim says.

{MORE OF} THE RIGHT STUFF



WENDY A. OKOLO

Associate Project Manager for NASA's System-Wide Safety Project; Aerospace Engineering Researcher in the Intelligent Systems Division, NASA Ames Research Center

'15 PhD, 10 BS, Aerospace Engineering

When Wendy A. Okolo told her elementary school class she wanted to be an engineer, she was met with laughter, even from her teacher. Dr. Okolo, now an aerospace engineering researcher in the Intelligent Systems Division at NASA Ames Research Center, says her mom encouraged her to keep dreaming.

"I have always been fascinated by the mechanics of flight," she says. "The mathematics behind space travel is mind-blowing."

Drawing inspiration from the Wright brothers, the duo who pioneered pilot-controlled aircraft, Okolo has applied her mathematics talents and curiosity to a number of aerospace projects at NASA. One of her favorite projects is an umbrella-shaped deployable entry vehicle. Her team spent months developing control methods so the cargo spacecraft could be used by astronauts to courier materials between space outposts and terrestrial bases.

Today, as associate project manager for the agency's System-Wide Safety Project, she is focused on developing technologies that will enable safe access to the national airspace for autonomous vehicles.



STEVE HUNKER

Mechanical Engineering Manager, Maxar Technologies
'08 BS, Mechanical Engineering

If you ask Steve Hunker how he got the job to design the robotic arm for NASA's Perseverance Mars Rover, he'll modestly tell you, "life just worked out that way."

Hunker's engineering career began in the oil and gas industry, where he designed equipment to perform complicated tasks on the sea floor. He had no idea his talents for developing hardware for harsh environments would be invaluable until his next employer, Maxar Technologies, received a NASA contract.

Appointed to a team of five engineers and technicians, Hunker spent four years in phases of design, testing, assembly, and integration of the rover's robotic arm. Its dexterity would serve the greater mission to seek signs of ancient life and collect soil and rock samples for return to Earth.

Since landing on Mars in February 2021, Hunker's hardware has helped scientists discover details of crater origins and determine the location of ancient water features.

"You can't beat the feeling of knowing that you've built hardware that is on another planet," Hunker says. "To be intimately involved in the design of a mechanism that is now performing complex tasks 100 million miles away is very fulfilling."



KATYA BOSTAPH

Senior NDE Engineer and Level III in Computed Tomography, Space X
'17 PhD, Aerospace Engineering

As a native of Samara, Russia, Katya Bostaph grew up in the birthplace of the Soyuz rocket family—the longest-running human-spacecraft program in history—surrounded by aerospace engineers. On Cosmonautics Day, an annual Russian celebration, Dr. Bostaph would watch national broadcasts about humankind's adventures to the final frontier. Stories of Yuri Gagarin, the Soviet cosmonaut who broke ground as the first human to travel to space, instilled in her a sense of wonder at humanity's potential beyond the atmosphere.

Today, Bostaph is helping to keep that wonder alive. As a senior nondestructive evaluation engineer and level III in computed tomography at SpaceX, she tests hardware for defects, corrosion, and structural integrity, ensuring the safety of the company's spacecraft.

On May 30, 2020, the SpaceX Crew Dragon capsule safely launched from the Kennedy Space Center, carrying Americans from U.S. soil to the International Space Station for the first time in nearly a decade.

"That rocket launch was the most satisfying experience of my career," Bostaph says. "It fills me with pride and excitement to know that I helped send our country's astronauts back into space."

effects around the world.

"The level of expertise presented by our faculty is exceptional, as evidenced by their leadership of multiple national and international investigations," says Alex Weiss, chair and professor of physics. "The mentorship that students receive in our undergraduate and graduate programs is unparalleled, enabling them to launch into impressive careers in the space industry."

Hands-on experience gained in campus labs equips students to step into leading roles for their own investigations.

In 2021, Tre'Shunda James, physics doctoral student, received a NASA Graduate Research Fellowship—the second Maverick to receive the honor in three years. For her appointment, James is charting the differences in ionospheric currents during the summer and winter.

James is one of a network of Maverick scientists who have received prestigious appointments with the National Science Foundation, the National Center for Atmospheric Research, NASA campuses across the United States, and top research universities.

ENGINEERING EXPLORATION

For the Webb telescope to launch, engineers designed a series of intricate folds to collapse the 70-foot-wide device onto the tip of a slender rocket. Once in orbit, the 14,300-pound origami project expanded in a carefully sequenced ballet of silicon-coated limbs. Its successful deployment was unlike any feat of engineering in global history.

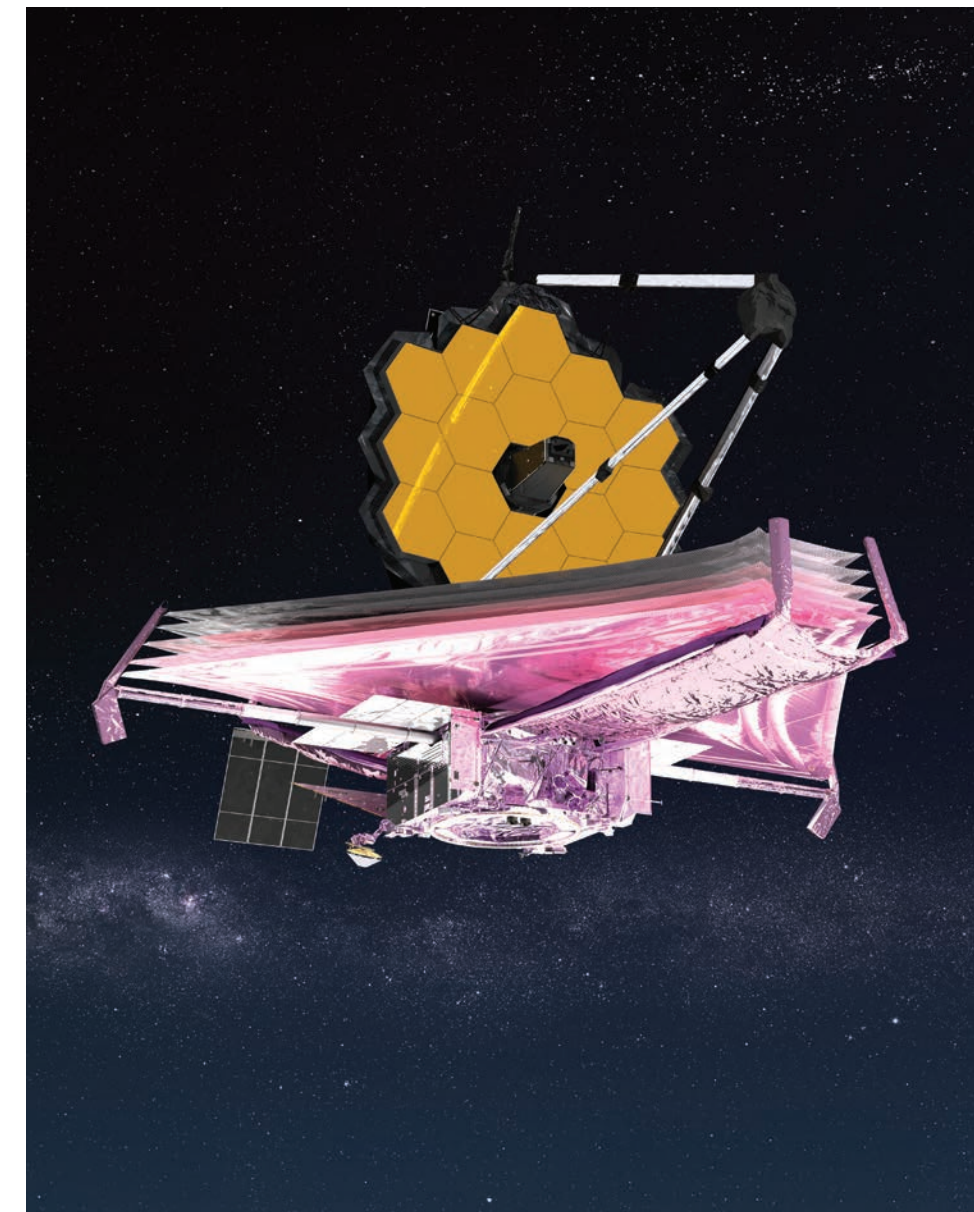
Aerospace engineers are no strangers to high stakes prototypes. That's a consequence of working in an industry on the leading edge of exploration. Often, they begin development with only an idea and a blank piece of paper. Over the years, many budding aerospace engineers at UTA have gotten hands-on practice for their future careers from what may seem like an unlikely place: building cars.

Every year, students in UTA's Formula Society of Automotive Engineering (FSAE) group construct a formula racing car from scratch. Under the supervision of Robert Woods, professor of mechanical and aerospace engineering (MAE), students manage the automobile design from initial drawings through race day. In the weeks before competition, the automotive shop converts into an unofficial dormitory, and Maverick engineers work through the night to perfect the vehicle.

The hard work pays off. UTA's FSAE racing team is one of the most successful student race car programs in the nation, having won eight championships in the United States and three abroad. Each year, by the time they return from competition, the team's members have received several job offers.

Erian Armanios, chair and professor of MAE, says his students' experiences on the ground prepare them for work in the sky.

"The reason that FSAE students are desirable to aero-



An artist's conception of NASA's James Webb Space Telescope.

space companies is because they fundamentally understand each phase of the design process," Dr. Armanios says. "Their knowledge is grounded in practical experience, and they are ready for real-world challenges."

To maintain students' 100% job-placement rate, Armanios says his faculty continually evaluate their research to address timely, essential issues on the leading edge of engineering.

At the end of her studies in the Advanced Materials and Structures Lab, Katya Bostaph, an MAE alumna, says her skills were so specific she worried she wouldn't find a job. On the contrary, her talents in X-ray computed tomography, or CT scanning, made her a valuable hire for the position of nondestructive evaluation engineer at SpaceX.

"I absolutely would not have the job I have today if it weren't for the education and resources I received at UTA," Dr. Bostaph says. **UTA**

No One Left Behind

After serving their country, veterans at UTA have turned their service-first energy toward each other, working arm in arm as they journey through life after the military. BY DANA JENNINGS

AT THE UNIVERSITY of Texas at Arlington, where veterans and military-connected students accounted for 11% of UTA's total enrollment in fall 2021, with veterans alone making up 4.7%, a point of pride is the thriving Office of Military and Veteran Services (MAVS). The impact of the program is evident, as UTA was recognized by *Military Times* as the nation's top four-year institution for veterans and their families in 2020 and 2021.

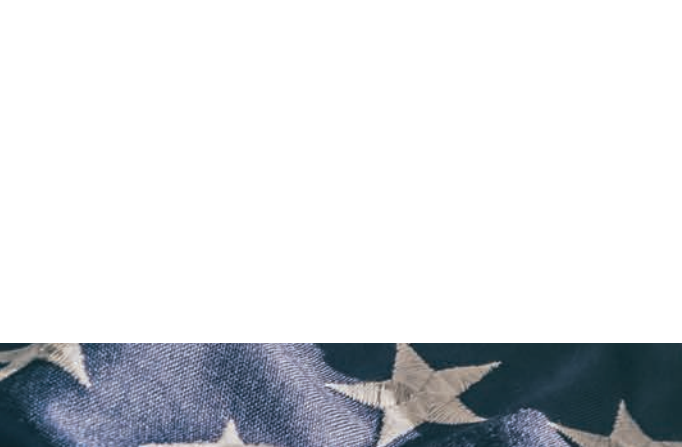
For veterans and military-connected students at UTA, the *Military Times* ranking cemented what they already knew: This place is special, filled with people who care and programs that go the extra mile.

Within moments of starting a conversation with Mavericks who are involved in military and veteran programs, the passion for service and for each other is clear. Their dedication paints a vivid portrait of a community bonded by shared experiences and a commitment to moving each other toward their goals.

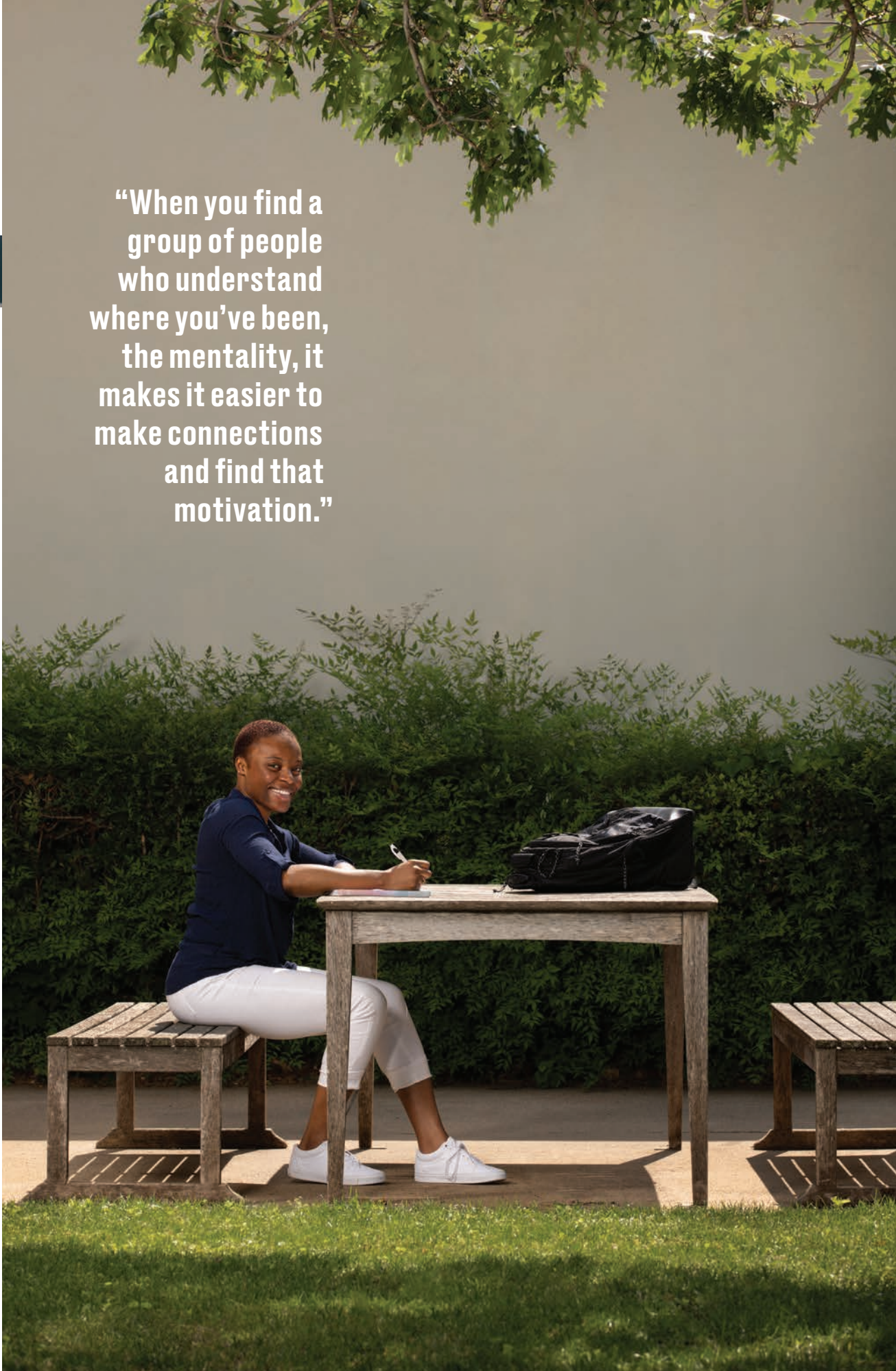
As these people work vigilantly to offer resources, helping hands, and listening ears, it's clear the "no one left behind" creed of the U.S. military has permeated UTA's campus.



U.S. Army veteran Derron Gadison found a network of individualized support through UTA's MAVS program.



“When you find a group of people who understand where you’ve been, the mentality, it makes it easier to make connections and find that motivation.”



BY VETERANS, FOR VETERANS

When James Kumm, a veteran of the U.S. Army, arrived at UTA in 2017 to assume his role leading programming and services for veteran and military-connected students, he was not initially met with the well-oiled machine that exists now.

“We had no idea what UTA’s military and veteran services would look like when I got here,” says Kumm, executive director of MAVS. “There were 17 different programs and offices. It took our students a literal mile-and-half walk to get everything done in order to get their benefits or just get involved.”

Kumm was given nine months to evaluate the programs and offer a plan on where the University should go from there. With this hefty challenge on his plate, Kumm looked to the people who knew the programs the best.

“My third day on the job, there was an orientation for veterans,” Kumm says. “We had a good group of students participating in that program, so I asked them where the veterans on campus congregated.”

The students pointed Kumm to the Veterans Lounge in UTA’s Central Library.

“I was in that library lounge at least once a day for several hours talking to any student I could,” he says. “I asked them what they thought, what they felt, and took notes on their experiences to help determine our next moves.”

Empowered by the firsthand experiences of veterans on campus, Kumm got to work centralizing military and veteran services. What was once 17 programs spread across campus became three primary offices: MAVS/VetSuccess on Campus, Veterans Education Certification Benefits, and Veterans Upward Bound.

His time spent in the library lounge set the template for how the MAVS program would be run going forward: by the people they serve.

“Our program is run by veterans,” Kumm says. “Everybody on our staff, in some capacity or another, has been in the students’ shoes. They understand what obstacles they’re facing and the challenges they have to overcome. Our entire goal is to make sure our students get their degrees. We’re here to help, to listen, and to get them connected with resources for mental health or benefits, for example, so they can stay focused on their education.”

As Albright Wilbert, a U.S. Army veteran, pursues her master’s degree, she’s also making sure other veterans have the support they need to succeed.

“IT’S JUST LIKE A FAMILY”

As far as Albright Wilbert, U.S. Army veteran and Master of Social Work student at UTA, is concerned, the value of the shared understanding throughout MAVS cannot be overstated.

“Transitioning out of the military is difficult when it’s all you’ve known, and people who haven’t spent time in the military don’t understand the struggles you’ve faced,” Wilbert says. “After being in combat, it’s not easy to get your mind in the right place to further your education.

“When you find a group of people who understand where you’ve been, the mentality, it makes it easier to make connections and find that motivation. It’s just like a tight-knit family that actually understands. That’s what I’ve found here.”

Wilbert has a passion for working with veterans and connecting them with the resources that help ensure they are taken care of after they leave the service. As she started the final year of her master’s program in fall 2021, she discovered an opportunity in the MAVS office that would foster this passion while meeting her capstone internship requirement.

In her role, which she continued in spring 2022 as her May graduation date approached, Wilbert served as a resource for students, regularly retracing Kumm’s steps to the Veterans Lounge in the library to interact with fellow students and hear what their needs are.

She spent her time helping to make sure veteran students have what they need to stay on track with their courses and that they are aware of the benefits available to them through the University and beyond. She says it was good practice for her future career in social work, but she remains a peer above all else.

JOURNEY FROM SERVICE MEMBER TO STUDENT

For some students, this kind of peer-driven support can make a world of difference in their educational journey.

Derron Gadison, political science senior, came to UTA after more than 20 years serving in the U.S. Army. After sacrificing time with his family to serve his country, Gadison wanted to get back to Texas. He was admitted to leading universities, UTA among them. His choice became clear when he learned of the veteran services available at the University.

“This was one of the top reasons I came to UTA—I knew they would be most helpful to me and my journey,” Gadison says, adding that the resources available at UTA made the transition from service member to student easier.

In his second semester, when Gadison began to feel overwhelmed, he reached out to Kumm, who first connected Gadison directly to resources on campus that could help.

“James and the MAVS staff will get down in the muck to solve a problem if any of us are in a situation that could bring unnecessary stress,” Gadison says, encapsulating the MAVS goal of connecting students with resources to keep them on their path to graduation. “They’ve been a great advocate for me.”

For Kumm, Gadison’s relationship with MAVS is a two-way street, as Gadison’s passion for the community has always shined through.

“He’s always there when we need him,” Kumm says.

Gadison notes that the value of UTA’s military and veteran community goes far beyond helping him reach graduation in spring 2023. There are intangible benefits, too: “MAVS employees have a knack for pulling me out of

HANDS-ON SUPPORT

UTA’s military-connected students have access to a wide range of support services.

MavVets, a student-veteran organization that provides campus networking with community leaders, access to veterans scholarships, and community service opportunities.

VetSuccess on Campus helps veterans, service members, and their qualified dependents succeed and thrive through a coordinated delivery of on-campus benefits, assistance, and counseling.

The Career Development Center, which helps veterans and other students pursue their professional goals and connects them to employment opportunities.

Veterans Upward Bound, a program for qualified veterans designed to motivate and assist in developing academic and other requisite skills necessary for acceptance and success in college.

my shell and helping me find ways of getting involved.” Ultimately, he says, it all boils down to support. “That’s the biggest thing,” Gadison says. “In the military, you have all this camaraderie, and you always know who to go to with a problem. A lot of veterans, when they get out, they miss that. At UTA, there’s someone to talk to and to help guide you through your new life.”

“IT’S A SOCIAL NECESSITY”

Helping veterans transition into life outside of the military is a big piece of what drives Dayton Williams.

Her eldest son, Sgt. Tyrell Seth Williams of the U.S. Marine Corps, was tragically killed in a hit-and-run less than 90 days after returning home from his third tour in Iraq. As she grappled with grief and the challenge of coming to grips with her son dying after making it home from the dangers of a warzone, Williams started to ask herself about what matters.

“I would not have chosen the military for him, but I did everything I could to support him, and I believe that’s what we need to do,” Williams says. “Supporting our military... I think it’s a social necessity.”

She took an early retirement from a career that had once been her passion, determined to make her next chapter one of service. What followed was a decade-long journey of discovering how she could fulfill her new mission of serving veterans, a journey that ultimately landed her at UTA pursuing a master’s in social work with an emphasis on mental health and substance abuse.

Williams completed her foundational internship for her master’s program in MAVS.

“When I met James, that’s when my journey in social work began to get really fun,” she says.

Through her internship, Williams got involved in Veterans Edge, a mentorship program for veterans and military-connected students in need of support. She says the sheer undertaking of the Veterans Edge mission is part of what sets UTA apart.

“Every semester, Veterans Edge mentors split up the roster of new veteran and military-connected students coming to UTA and get in contact with every single one,” Williams says. “I had 80 people on my call list. Who else does that? Who else makes that kind of personal commitment to engage an entire community and remind

them we’re here for them?”

As she has made her way through her degree program, Williams secured her Mental Health Peer Specialist certification to offer pro-bono peer services to veterans. After graduating in fall 2022 with her master’s and a certificate in Military Social Work, she intends to continue providing free mental health services to veterans.

“My personal purpose is to advocate for the removal of the mental health stigma in the veteran community, whatever way I can accomplish it,” Williams says. “They deserve a happy, free life, one that’s worthy of the sacrifices they and their family members have made. Receiving mental health assistance can make the difference between the prison of the mind and stepping into the sunshine, the freedom. That’s why I want to make a difference for them.”

MAKING EACH OTHER BETTER

When it comes to identifying the reasons for MAVS’ resounding success at UTA, students and staff alike point to each other. Kumm attributes it to the students who engage and offer feedback, creating a grassroots-style

organization that makes the program better, while Wilbert, Gadison, and Williams all emphatically insist that all credit goes to Kumm and MAVS staff members.

This may be the best illustration of why UTA’s MAVS is so acclaimed: the selfless nature of the program and the people involved, along with their collective passion for making sure every student has the chance to succeed.

A community the size of UTA’s veteran and military-connected population has the power to make a tremendous impact on campus, and Kumm says the students do so in ways that only serve to make UTA stronger. Military-connected students make great students, period, enrolling in rigorous academic tracks like nursing, electrical engineering, and business and maintaining average GPAs above 3.0

“What’s great about our community is they come in with robust educational and life experience,” Kumm says. “They bring a different level of maturity to campus, and those skills get noticed and influence others. Our veterans understand the concept of teamwork, and they’re not afraid to ask questions. We hear consistently that they stand up as leaders in the classroom.” **UTA**

Dayton Williams (left) has made it her mission to give back to service members and their families. James Kumm (right) directs the MAVS program at UTA.



“Supporting our military... I think it’s a social necessity.”



“Our veterans understand the concept of teamwork, and they’re not afraid to ask questions. We hear consistently that they stand up as leaders in the classroom.”



*At the
Nexus of*

A R T

Science

*Students at
the Hybrid
Atelier merge
the creative
with the
technical.*

BY
AMBER SCOTT

NEAR A WORK table at the Hybrid Atelier, UTA's newest research makerspace, a dorukha (a two-sided shawl) sits on a dress form. Embedded with sewn lights, the shawl glows warmly in a slow pulsing pattern that reflects sensor readings from an ambient sound meter. When a wearer touches the intricate capacitive touch embroidery on the fabric, the shawl changes its rhythm, pulsing faster.

It's just one of the many kinds of innovative creations you'll find underway at the Hybrid Atelier, where students complete projects that range from electronics-infused fabrics like the dorukha to 3D-printed clay vessels and silicone bladders. The digital fabrication facility is set up for craft practices in ceramics, textiles, printmaking, and glass-working. As a research makerspace, the Hybrid Atelier contributes to a branch of computer science known as Human-Computer Interaction (HCI), which aims to understand how technology can be embedded within our everyday environments and culture.

"It's a twist on traditional makerspaces because we're exploring how we create new practices that other people can participate in," says Cesar Torres, assistant professor of computer science and engineering and director of the Hybrid Atelier. "Our makerspace serves as a nexus between the arts, engineering, and the sciences."

Shreyosi Endow, who is working toward her PhD in computer engineering with a focus on HCI, became involved with the Hybrid Atelier after



DuckCheck!

WHAT IS IT?

A resin-printed duck that helps control a coding environment

DuckCheck! is an interactive version of the "rubber duck debugging" concept of software development. The project aims to help novice programmers get into the art and science of programming by providing them with a fun and interactive avatar that can aid them in the process of coding/debugging. The duck delivers visual cues through a customizable LED and provides haptic feedback through an embedded motor. For example, the duck glows red when there is a major error in the code. These cues can help a programmer figure out errors in their debugging process and help them build better programming practices.



WHAT IS IT?

A two-sided shawl embedded with capacitive-touch embroidery and a sound meter

Dorukha, which means "two-sided" or "double-faced," is a type of shawl that has been produced for centuries. In this modern iteration, the dorukha is made from a smock-constructed textile that has been infused with capacitive-touch embroidery and a sound meter that responds to proximity interference through an LED, which is also incorporated into the shawl.

Dorukha

MAKING @UTA

The Hybrid Atelier is close partners with the ecosystem of makerspaces at UTA.

FabLab and the Studios

Located at the Central Library, the FabLab opened in 2014 and is the crown jewel of UTA's makerspace ecosystem. Open to students, faculty, and staff, the 8,000-square-foot makerspace contains 3D printers, laser cutters, screen printers, kilns, sewing machines, and much more. Unlike other makerspaces on campus, the FabLab doesn't necessarily prioritize academic use over recreational use.

"Our goal is to democratize the access to some of these tools so students can explore," says Katie Musick Peery, director of the FabLab. "Our primary focus is to be a teaching space in a teaching lab so you don't have to have any prior experience with any of the tools when you're coming in."

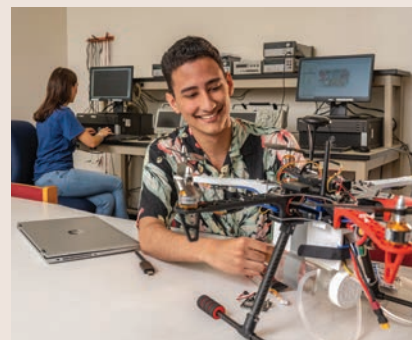
Most recently, the FabLab has grown its footprint so that the shop room contains more wood- and metal-working equipment, including traditional hand tools and CNC (computer numeric control) equipment, like a plasma cutter.

It has also grown to the Studios, which adds an additional 8,000 square feet of

making and learning space. The Studios includes whisper booths for recording instrumentation and vocals; musical instruments like MIDI keyboards, guitars, and microphones; photography studios that can be utilized as green screen rooms; and a motion-capture studio that will allow students to do animation work and special effects. Other components of the space are a robotics and electronics studio with a drone cage and soldering equipment for electronic materials. In addition to the Studios, the Basement also includes a gaming-focused space, adding a social component to the area.

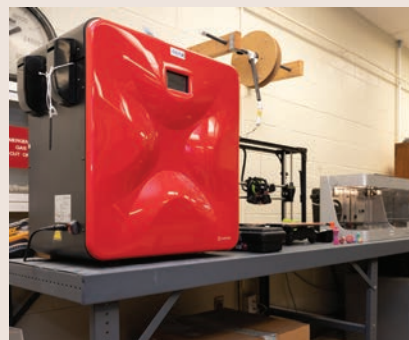
"People often wonder why we have these

makerspaces, these creative spaces, in libraries. They think libraries, and they think of books," says Gretchen Trkay, associate university librarian and head of experiential learning and outreach. "But libraries have always been a place for building community and getting access to resources that may not be affordable or accessible to you in your home."



Computer Science and Engineering/Electrical Engineering Makerspace

Open to all students currently enrolled in the College of Engineering, this makerspace provides equipment for academic or personal engineering projects.



Mechanical and Aerospace Engineering Design Innovation Lab

The Design Innovation Lab in Woolf Hall is an additive and subtractive manufacturing lab that includes eight 3D printers on the additive side. On the subtractive side is a machine shop that includes a mill, lathe, drill press, metal-bending equipment, sander, bench grinder, and more.



College of Architecture, Planning, and Public Affairs Digital Fabrication Lab

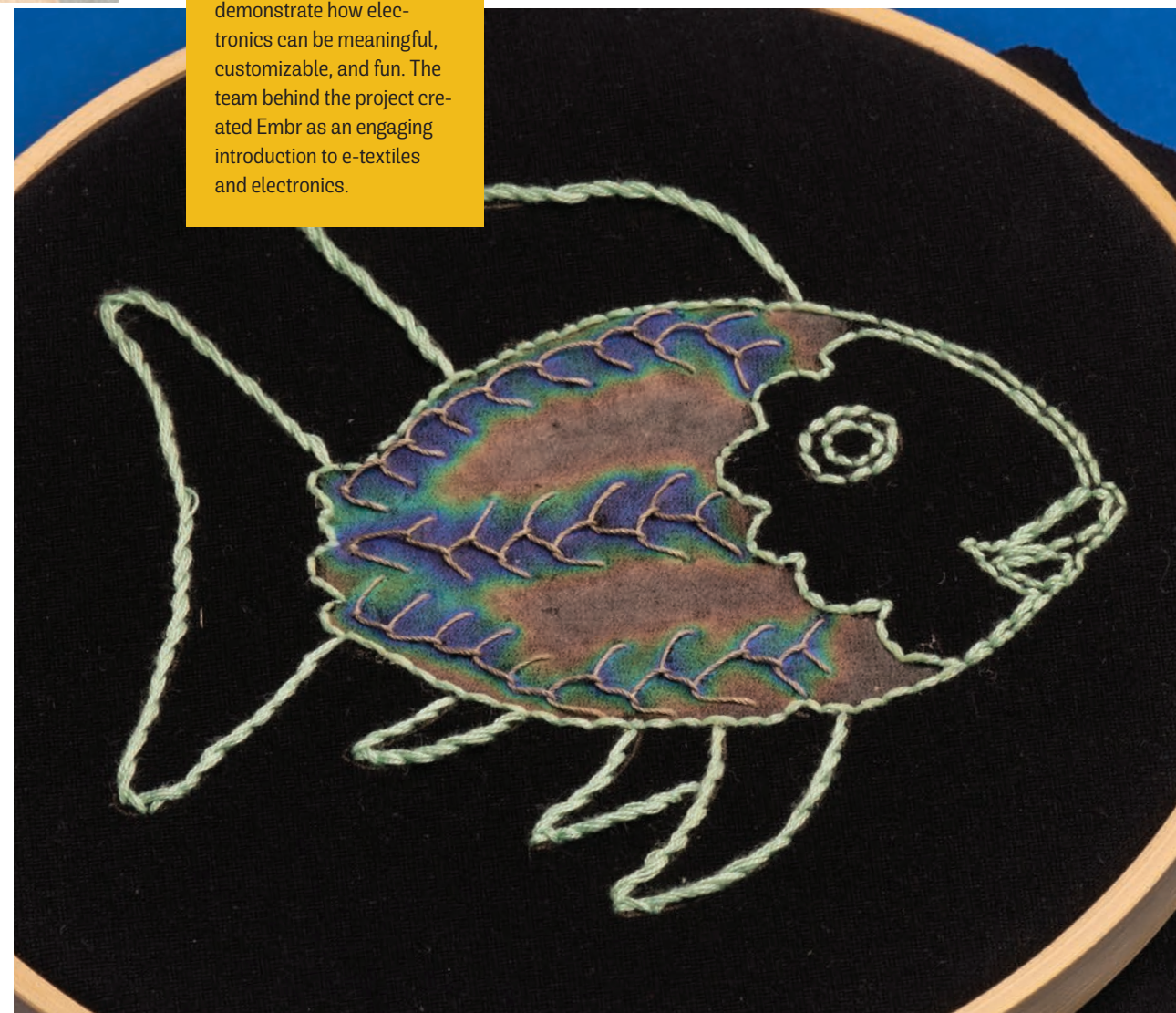
The Digital Fabrication Lab is a research facility focused on the testing and production of architectural components, modeling and simulation, and Computer-Aided Manufacturing (CAM) equipment. The lab is organized into two sections: One is dedicated to small prototyping production with multiple 3D printers and laser cutters; the other is designed for large-format production and holds several pieces of CNC-controlled equipment.

Embr

WHAT IS IT?

A hand-embroidered liquid-crystal textile display

Consisting of a resistive heating circuit made of conductive thread that activates liquid crystal ink to make dynamic color changes, these embroidered pieces demonstrate how electronics can be meaningful, customizable, and fun. The team behind the project created Embr as an engaging introduction to e-textiles and electronics.



meeting Dr. Torres and learning about the makerspace at the Student Research Computing Festival, UTA's annual research workshop and conference.

"The Hybrid Atelier felt like a great fit for my research interests," she says. "I've been working in the lab for the past year and a half now, and it has been a great experience so far."

Endow's main research interests in the field of HCI include creativity support tools, digital fabrication, wearable technology, and assistive technology. While she typically focuses on developing the hardware side of project production, the interdisciplinary nature of the Hybrid Atelier has allowed her to branch out and try new things—and she has used those experiences to expand her research as well.

"I was able to get my hands on a pottery

wheel, and as a result, I spent an entire semester researching how to create tutorial systems for tasks, like throwing clay on the wheel," Endow says. "Makerspaces are great for creating many opportunities to get hands-on experience and learn new skills, which is not only useful for the future, but also keeps the current learning experience inspiring and fun."

Long Nguyen, a senior computer science major, joined the Hybrid Atelier after taking Torres' "Intro to HCI" class. He says the class sparked his interest in interactive design and HCI, and after joining the Hybrid Atelier, that interest turned into a passion for creativity he didn't know he had.

"A lot of people have creative interests, but they don't know where to start or how to express them," he says. "The Atelier is my creative home, and outside

WHAT IS IT?

Individual pottery printed from a 3D clay printer

Like traditional 3D printers do with plastic, a clay 3D printer extrudes clay into shapes and textures based on .stl files. While thrown pottery can be more therapeutic, tactile, and better suited for material conversions, clay 3D-printing can achieve precision and textures much faster, making it easier for mass production and for novices to try their hand at pottery without a steep learning curve.



WHAT IS IT?

Thermoplastics that have been manipulated, edited, and composited

Current 3D printing workflows limit a maker's ability to alter the shape and form of a printed object and constrain the number of materials that can be used in a singular form. Leveraging techniques from traditional glass slumping and fusion, these forms demonstrate how different thermoplastics can be manipulated, edited, and composited to create expressive, functional 3D forms while still maintaining the benefits of computer-aided design.



of research, I actually come back consistently to do things I never thought I would do."

For Nguyen, that runs the gamut, including laser printing, woodworking, screen printing, weaving, and more.

"Makerspaces are so important because they literally induce creativity, and then they mix creative thinking with engineering logic," he says. "After I graduate, I'm planning on pursuing a hybrid design and engineer role, and my work at the Atelier is right in line with this. We literally merge art and code."

As An Nguyen, an undergraduate computer science student, notes, having a place to explore more creative endeavors while developing technical skills at the same time is invaluable for any student.

"Regardless of the outcome, the making process allows you to take charge of your learning and is a very empowering experience for students," she says. "Being part of an uplifting research community has continuously pushed me out of my comfort zone and has led to opportunities and experiences I wouldn't have had otherwise."

These intangible lessons are exactly the point of any makerspace, Torres says. And it's also why they tend to thrive on university campuses.

"Makerspaces align with the pedagogy strategies that are all the rage in an experiential learning—it's thinking through doing," he says. "Also, the overarching aim is for students to create personally meaningful artifacts, meaning that they are working on personal projects and solving real problems within the lab community. That way, students can actually work on what they want and still learn the skills needed for their coursework."

Endow agrees, noting that the real applications of what they learn in their classes only serve to expand the boundaries of learning.

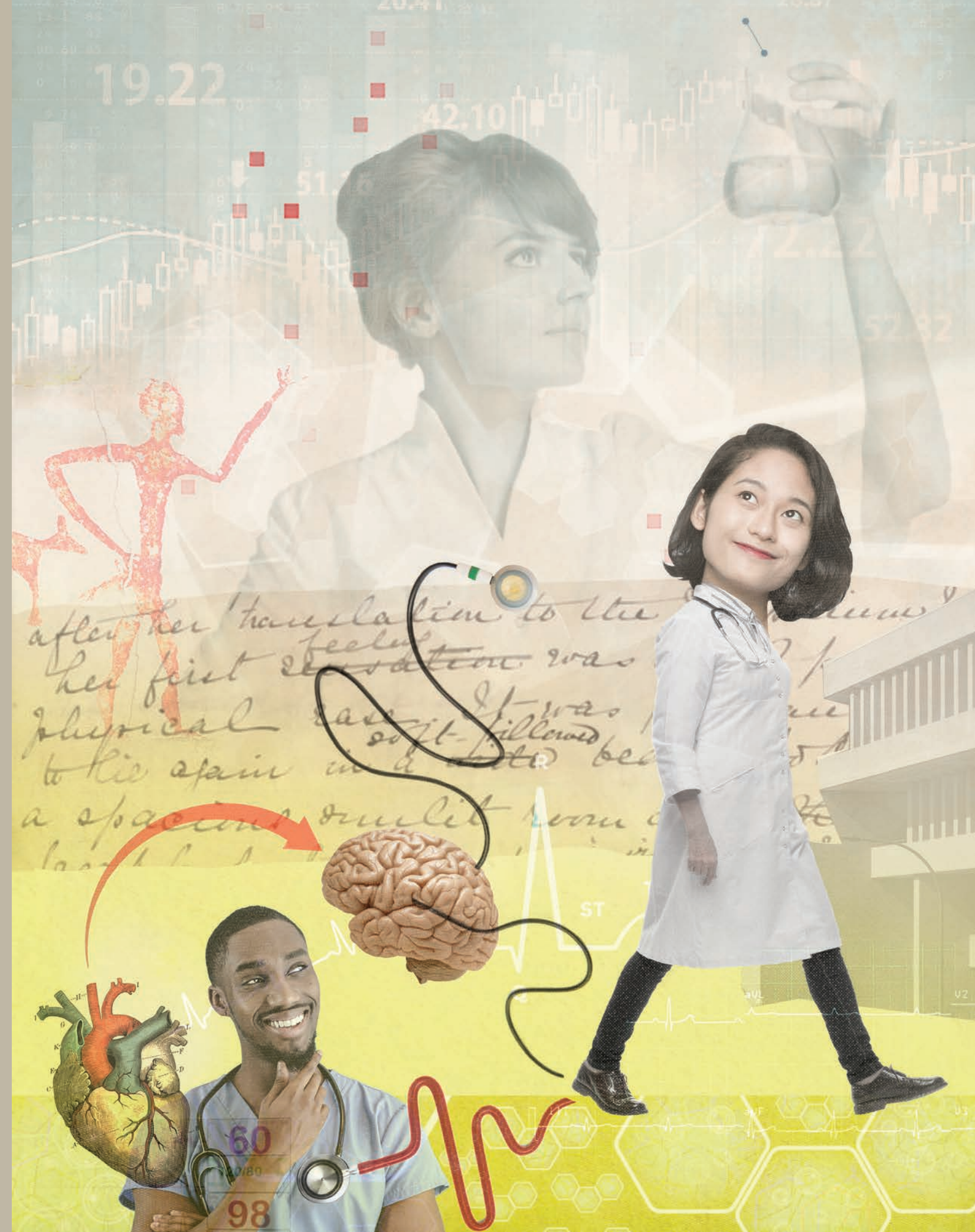
"I think makerspaces give students a lot more autonomy and freedom in realizing their ideas than the traditional classroom," she says. "Access to makerspaces is essential to allow students to think of new and unique applications of the concepts they learn in class and get curious about what exists outside of classes." **UTA**

{ HUMAN } *Kind*

Through
its Medical
Humanities
program, UTA
is working
to humanize
medicine.

BY
DEVYNN CASE

ILLUSTRATIONS BY
DANA SMITH



JAIANNA MEGAHAN, now a senior psychology major and pre-med student at UTA, was just 19 when she almost died. She had just begun her college experience, and it unfurled much the same way it does for other freshmen: lots of studying, making new friends, and fun. But somewhere along the way, she started to feel sick.

She found herself short of breath in the midst of mundane activities like changing her clothes or walking to class. At the same time, she started experiencing intense pain in her calves.

Her visit to the local health clinic uncovered what was a life-or-death health crisis: She had a blood clot in her leg, and at the nearby hospital, doctors discovered many more clots in her lungs. Throughout her time in the hospital as she sought and received treatment, she encountered several doctors and nurses, all of whom approached her with vastly different levels of care and concern.

“That entire week, I felt like a limited-time-only museum exhibit that everyone had a ticket to—everyone but me,” she says. “I had never felt more alone, more confused, or more frightened than I did that week in the hospi-

tal. But I lived. And not only did I live—I learned.”

The lesson, she says, is one that you can’t read in a textbook.

“When you go through school as an aspiring physician, you are taught techniques, theories, and told to see the body as a machine,” she says. “You are the mechanic looking for what caused the car to break down. But that week in the hospital allowed me to experience medicine as a patient. I was a human being with emotions and feelings that weren’t being seen. I was vulnerable.”

Now an aspiring physician, Meghan wants to create a more humane medical practice, something she acknowledges has been a hot topic for a long time in the medical field.

“The majority of students go into the medical field because they want to

help people, but I believe that somewhere along the way, we forget how to express it,” she says. “We can only go so far with the technical information we learn in the classroom. We must learn the science, practice the compassion, and teach both.”

This humanitarian approach to the practice of medicine is the heart of the new Medical Humanities program in UTA’s College of Liberal Arts (COLA). Housed in the Department of Philosophy and Humanities, Medical Humanities is an interdisciplinary field that pulls together humanities, social sciences, and the arts with their applications to medical education and practice.

“A basic tenet of liberal arts is that they pervade everything, and that it’s a way to understand how to think,” says Dan Cavanagh, interim dean for COLA and a professor of music. “Society needs those who are able to draw in ways of thinking from seemingly disparate areas to understand problems. Medical humanities is one of those areas that really exemplifies that kind of approach.”

Those involved in UTA’s Medical Humanities program—from administrative leadership to faculty to students—believe medical humanities can transform health care for the world.

A Human Connection

At first glance, it would seem that liberal arts and medicine wouldn’t necessarily go hand in hand, but they share a key commonality: humans. That connection is exactly the point of medical humanities, which seeks to bridge the two disciplines for the benefit of the people medicine serves.

“The humanities are a way to create

context around students’ scientific, pre-med, or nursing studies,” says Dr. Cavanagh. “It’s a unifying factor.”

Comprised of instructional programs that explore the ethical, historical, literary, and philosophical dimensions of medicine or health, medical humanities can include education in art, cultural studies, economics, history, literature, anthropology, religion, technology, visual art, and writing.

As reported in an extended article published by the Association of American Medical Colleges titled “The Fundamental Role of the Arts and Humanities in Medical Education,” educating the health care workforce with a dose of arts and humanities delivers outcomes that improve the patient experience and their health, and can aid in a clinician’s ability to meet 21st-century needs.

“I counsel pre-med students regularly regarding the changing characteristics for the ideal medical school applicant,” says Steven Gellman, founder of UTA’s Medical Humanities program and associate professor of practice. “Many pre-med and health professions students find value in a science major alongside a minor in medical humanities and bioethics, where we teach about hope, about pain and suffering, about empathy. These are all things

that I wish I had learned when I was in medical school, but it was never taught. Somehow it’s supposed to be picked up along the way.”

Medical Humanities at UT Arlington

The first medical humanities course at UT Arlington took place in the fall of 2018. From there, it has grown to include a 12-credit-hour Medical Humanities certificate program and the new 18-credit-hour minor in Medical Humanities and Bioethics that started in August 2021. A federal grant of \$35,000 was awarded to UT Arlington with funding from the National Endowment for the Humanities for the continued planning and revision of UTA’s program. The first group of student graduates with the minor completed their degrees in spring 2022.

Prishmi Nagarajan graduated in spring 2021 with a Bachelor of Science in biology and a certificate in Medical Humanities. She is currently studying for the Medical College Admission Test for prospective medical students. Nagarajan took criminology and social work classes along with biology and other medical humanities courses.

“Those were some of the coolest classes that I took in my undergraduate career,” says Nagarajan, who hopes

to one day have a career in pediatrics or ophthalmology. “I remember putting together my biology degree plan and saying to myself, ‘Criminology sounds so out of the ordinary,’ and that excited me.”

In addition to requirements for the minor, like “Introduction to Medical Humanities” and biomedical ethics courses, students can take courses that allow them to explore how medicine intersects with just about any liberal arts discipline. One unique requirement of UTA’s medical humanities minor is a course in disability studies, another field that was developed through COLA. In all of these courses, students develop skills in collaboration, cultural competencies, research, and writing about health-related subjects.

“Those experiences in my classes were really enlightening. They tied together ethics, philosophy, and medicine in a cohesive way,” says Nagarajan. “It gave me a lot of different perspectives on how to help people in the best way possible. With those skills, I can trust myself to handle unexpected or difficult situations.”

Dr. Gellman, who practiced medicine for 31 years and is also a clinical assistant professor at UT Southwestern Medical Center, says that reemphasiz-

JAIANNA MEGAHAN, A SENIOR PSYCHOLOGY MAJOR, BECAME INTERESTED IN MEDICAL HUMANITIES AFTER A HEALTH SCARE AS A FRESHMAN.





“Students should be trained to be interested in the patient as a whole, rather than as symptoms alone—to be interested in people rather than diseases.”

ing the importance of the person as the patient has been a chief goal.

“Patients kept coming to me over the years saying, ‘I went to that doctor and we didn’t connect’ or ‘The doctor didn’t care about me as a person,’ and that is the crux of the whole program here at UTA,” he says. “Treat the person. Students should be trained to be interested in the patient as a whole, rather than as symptoms alone—to be interested in people rather than in diseases. My goal at UTA is to transform medicine and make it more humane and more personal.”

Passionate Students to Compassionate Professionals

Gellman considers student enthusiasm and participation the most meaningful part of medical humanities learning at UT Arlington.

The newly formed club, Mavericks for Medical Humanities, has over 40 members and regular programming, including a virtual symposium in April 2021 that brought in 130 attendees. Karyssa Nelson, who completed her Bachelor of Science in psychology and a certificate in Medical Humanities in December 2021, was the president of the club before she graduated.

“The emphasis of the club is to expand student learning about medicine and humanities,” says Nelson, who is taking a gap year before applying to medical school. “But of course, college students also like to be part of a community and have fun.”

In November 2021, the student organization hosted its first Medical Humanities Fair, which was funded in part by a grant from Humanities Texas, the state affiliate of the National Endowment for the Humanities. The event included an ex-FBI agent as a guest speaker, an improv workshop, live music, dancers, popcorn and cotton candy, and more. The showcase also allowed students to see the many fields that medical humanities can be applied to.

“The integration of fields is so valuable,” says Nelson. “You can express yourself while you’re also learning and improving academically. Every major and interest can fit in somehow.”

The organization also published the first issue of *Stimulus: A Medical Humanities Journal* in May 2021. The collection featured prose and visual arts from UTA students, faculty, staff, and alumni. Medical humanities students are offered other opportunities for creative expression, facilitated by an established studio space within UTA’s Philosophy and Humanities Department. Art supplies are available for students to use for free to help integrate the creative and the theoretical.

As the forward for *Stimulus*, co-written by founding editors Nelson and Thao Thu Nguyen (’20 BS, Biomedical Engineering), reads: “We want to highlight the importance of ethics and empathy in health care providers while simultaneously recognizing that they, just like their patients, are multifaceted. We hope to provide a space for our students and staff, many of whom are current or future health care workers, not only to keep their passions alive, but to find a way to incorporate their art into their roles as providers.”

Growing Importance

Smriti Ghimire, an undergraduate student in pre-medical studies at UTA and member of Mavericks for Medical Humanities, believes it will benefit her to broaden her viewpoint beyond a single discipline.

“You can connect anything back to medical humanities,” says Ghimire. “One of my early interests in medical humanities stemmed from its pertinence in our daily lives, especially during the pandemic.”

Indeed, the COVID-19 pandemic has been a once-in-a-century crisis that has forced health care professionals and educators to look beyond the traditional tools of contemporary medicine. Now more than ever, scientific knowledge must be woven together with emotional intelligence, critical-thinking skills, and an understanding of social context. The significance of COVID-19 has forced both health care professionals and those interested in the humanities to ask new questions. Mavericks are coming in wanting to make a difference, know-

ing that science and data have a life of their own.

Eli Shupe, program coordinator of medical humanities at UTA and assistant professor of philosophy and humanities, says Mavericks who take these courses and go on to become nurses or doctors will be able to think more broadly when dealing with public health catastrophes.

“It is a topical field of study, and students are particularly passionate about it right now because they’ve experienced the effects of the COVID-19 pandemic and large-scale health policy decisions,” says Dr. Shupe. “Many of them have experienced the virus firsthand or may have even lost loved ones to COVID. The students are acutely aware of the ethical dimensions of the pandemic, of health care, and of public health policy, and are connecting with the material in a way that I’ve never experienced before as a bioethics teacher.”

The Future of Health Care

The future is wide open for Mavericks who pursue medical humanities training on their paths to becoming health care providers. The skills can translate easily into medical school, public health departments, community services, health education, or even

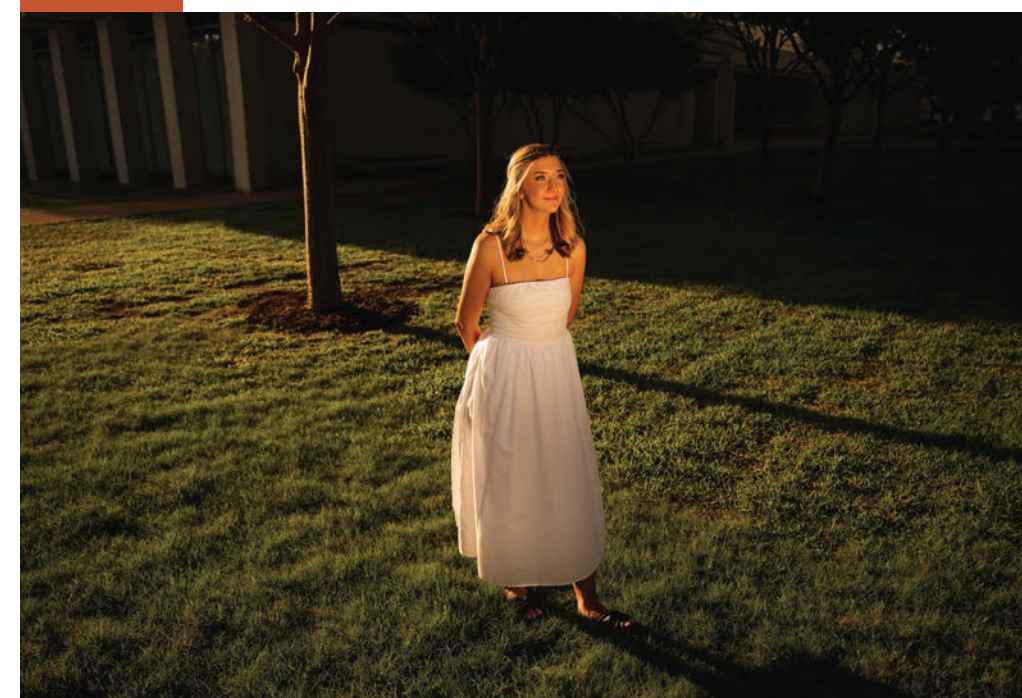
in research laboratories. Essentially any profession that was created to help someone who is struggling can benefit from providers who have pursued medical humanities as part of their learning.

“Our liberal arts courses combined with UTA’s amazing programs across disciplines like science, nursing, kinesiology, and social work are a huge strength,” says Cavanagh. “Combining this critical mass of experts from across the colleges creates an inspiring, unique, and timely experience for our students.”

The interdisciplinary connections between campus units are able to bring students who wouldn’t typically be in liberal arts classes into arts and humanities classrooms. As the Medical Humanities program grows, UTA administrators aim to grow its value for pre-health professionals and students in other fields alike.

“We hear from colleagues across the medical field how important the skills that they learn here can be,” says Cavanagh. “That human compassion and understanding how things like the arts can play a role in a physician’s or a dentist’s or a nurse’s professional life—it’s not just for the benefit of their work treating patients, but also for their own lives.” **UTA**

KARYSSA NELSON (’21 BA, BIOLOGY) GRADUATED WITH A MEDICAL HUMANITIES CERTIFICATE FROM UTA.



Arlington Tomorrow Foundation's \$1M MATCHING GIFT CHALLENGE



UTA has been awarded a \$1 million matching gift from the Arlington Tomorrow Foundation in support of the University's new School of Social Work/College of Nursing and Health Innovation Smart Hospital Building.

The gift serves as a dollar-for-dollar challenge grant with the goal of inspiring alumni as well as other members of the Maverick community to take part in bringing the state-of-the-art facility to life.

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uta.edu/giving/impact/ssw-sh.



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SSW CLASH

*All the
latest
professional
updates
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talented
alumni all
over the
world.*

1971

Laxmi Mrig
(MS, Electrical Engineering) and his wife, Raj, endowed a \$100,000 graduate fellowship for UTA electrical engineering students.

1974

Mitch Womble
(BA, Health, PE, and Recreation) retired in 2009 after 34 years in the photography and micro-film industry. In 1994, he retired after a 26-year career in the U.S. Naval Reserves.

1975

Tom Moore
(BA, History) has been president and senior consultant of the Thomas R. Moore Executive Search LLC, a retained search firm serving the nonprofit community nationwide, for 32 years.

1980

Lloyd "Loi" D. Khuc
(BS, Electrical Engineering) retired in November 2020 after working at Motorola Semiconductor, Lockheed Missile & Space Co., and serving 16 years with the U.S. Army Combat Capabilities Development Command Armaments Center at Picatinny Arsenal, New

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and let us know
what is keeping
you so busy.

Jersey. He received the Army's Research and Development Achievement Award for technical excellence in 2010 and was granted six patents over the years.

1982

Michele Wong Krause
(BA, Political Science) has been elected chair of the Dallas Area Rapid Transit board of directors.

Timothy D. Strucely
(BS, Architecture) joined Lockwood, Andrews, & Newnam Inc. as a program manager. He is responsible for planning, executing, and finalizing the design and construction of K-12 school facilities and higher education projects. He previously served the Dallas ISD as executive director of construction.

1984

Ron Berggren
(MBA) has been promoted from controller to CFO at Palomar Modular Buildings in DeSoto, Texas. Palomar designs and manufactures advanced modular buildings.

CLASS NOTES

1986

Ken Cummins Hall (BS, Civil Engineering) is a vice president and south-west regional manager at Hazen and Sawyer, an environmental engineering firm in Fort Worth. Hall’s 35-year career includes multiple global and regional management and technology roles. He serves on the advisory board of the UTA College of Engineering.

1990

Toska Medlock Lee (BA, Communication), owner of The Myriad Group & Co., received the 2021 President’s Volunteer Service Award silver medallion. Lee’s service and engagement activities include community building through Project Unity, voter and education awareness, COVID-19 relief through food giveaways and school drives,

and breaking barriers for the underserved.

Greg Muccio (BBA, Marketing) is senior director of Talent Acquisition for Southwest Airlines. He is in his 20th year with Southwest.

1991

Sam Mahrouq (BA, Journalism) threw out the first pitch during UTA Night at the Rangers. Mahrouq is chairman and CEO at MEI Group. In 2019, UTA’s College of Business dedicated the Sam Mahrouq Financial Markets Lab.

1998

Mark Dvorak (MEd, Teaching; ’83 BM, Music) retired after 30 years of teaching music at Holiday Heights Elementary School in North Richland Hills, Texas. He directed the Husky Harmonics, a

fourth- and fifth-grade choir, and he also sang during the College of Education holiday reception from 2000–20.

2001

Lee Mulcahy (PhD, Humanities; ’88 BA, French) exhibited paintings and sculptures on Africa Water Wells—a clean water well ministry in Kenya started by Mulcahy’s late father—at UTA’s Gallery West in late 2021. The installation at Gallery West celebrated the ministry’s plans for a 10th water well at an outlying clinic of Tenwick Hospital. Mulcahy is based in Aspen, Colorado.

Charlene Parham (BA, Interdisciplinary Studies) has been named area superintendent of academic programs for the Denton ISD. Previously, she was principal of Crownover Middle School in Denton, Texas, Sanger High School in Sanger, Texas, and Tannahill

“My business degree helped me build my insurance agency, and we are now in our 44th year in business. Go Mavs!”

— EMORY ESTES III
(’73 BBA)
Owner and President of the Estes Insurance Group LLC

Intermediate School in White Settlement, Texas.

2002

Linda Plank (PhD, Public and Urban Administration) was appointed dean of Baylor University’s Louise Herrington School of Nursing in Dallas, where she is a clinical associate professor. Previously, she was interim dean and senior associate dean of academic affairs.

2005

Theresa O’Donnell (MPA) has been appointed the director of planning and general manager of planning, urban design, and sustainability for the city of Vancouver, Washington.

Salem Butti Salem Al Qubaisi (MS, Electrical Engineering) has been appointed as the director-general of the United Arab Emirates Space Agency. He will lead efforts to develop space sciences and associated advanced technologies, establish related regulations and policies, and promote the nation’s capabilities.

2006

Anthony Sorola (MEd, Educational Leadership and Policy Studies) is the associate superintendent of opera-

tions for the Ector County ISD in Texas. Previously, he was an elementary bilingual teacher and assistant superintendent for Dallas ISD and interim superintendent at Donna ISD.

2007

Michael Talley (BA, Sports Management) has been named senior vice president at the McKinney Economic Development Corporation. Previously, he was the director of economic development for Denton County and for the city of Keene, Texas.

2009

Jennifer Ellison (MEd, Educational Leadership and Policy Studies) is chief of staff for Midlothian ISD. She began her career as a middle school teacher and coach in Arlington, Lancaster, and Bryan, all in Texas. She was also an assistant principal in the Arlington ISD. She served as the dean of instruction at South Grand Prairie High School, chancellor at the Grand Prairie Collegiate Institute, executive director of secondary curriculum at Southwest ISD, and director of high school programs at Palo Alto College in San Antonio.

2010

Joseph Chacon (MPA) has been named chief of the Austin Police Department. Chacon previously served as interim chief since March 2021. He has 29 years of law enforcement experience.

Esperanza Sanchez (BSN) is a nurse on the Rapid Response Team at the George Washington University Hospital and a lawyer for the U.S. Department of Labor.

2011

Brian Joseph Renteria (MPA) is a certification officer at Texas Wesleyan University in Fort Worth. He is a member of Board Build, a nonprofit organization focused on community stewardship.

2012

Malcolm K. Oliver (PhD, Public and Urban Administration) has been appointed dean of the John S. Watson School of Public Service at Thomas Edison State University in Trenton, New Jersey.

2013

Peggy Esparza (MBA, Management; ’11 BBA, Accounting) has been named the new CFO at Texas Trust Credit



Washima Huq (’14 BBA, Management), executive director of the Texas Trust Giving Foundation, which is the nonprofit arm of the Texas Trust Credit Union, has received the 2022 Rising Star award from the Greater Arlington Chamber’s

Women’s Alliance. Huq was recognized for her unwavering dedication to the mission of enhancing the city of Arlington and its surrounding communities through professional, volunteer, and charitable endeavors and civic engagement.

Union. She is a 26-year Texas Trust veteran who began her career in 1995 as a part-time teller.

2015

Samuel Lackey (MS, Exercise Science and Health and Fitness) is the new director of football sports performance at California State University in Fresno. Previously, he was head strength and conditioning coach at Northern Arizona University.

John McPhail (BS, University Studies) played for the Australian Men’s Wheelchair Basketball Team in the Tokyo Paralympics. He was a member of the Movin’ Mavs wheelchair basketball team.

“Thank you for the great experience you’ve given me, UTA. It’s led to amazing opportunities, including working in Hawaii for five years!”

— SYLVIA LOH (’16 MS, BIOMEDICAL ENGINEERING; ’15 BS, BIOLOGY)
Medical Device Auditor, BSI

2016

Amina Taj (MArch) is an architectural designer at Tesla in Fremont, California. She develops, designs, improves, and articulates future manufacturing/production design strategies for a wide range of Tesla’s project areas. Previously, she was design coordinator at HGA Architects and Engineers in San Jose, California.

Krista Torralva (BA, Journalism) is a reporter covering primarily Dallas County criminal courts for the *Dallas Morning News*. She first joined the newspaper as an intern on the business desk in 2013. Previously, she was an education reporter for the *San Antonio Express-News* and a court reporter for the *Orlando Sentinel* and the *Corpus Christi Caller-Times*.



Alfred Vidaurri Jr. (’82 MArch, ’79 BS, Architecture) became the first Latino president of the National Council of Architectural Registration Boards. Vidaurri is a vice president at Fort Worth-based Freese and Nichols. He is a fellow of the American Institute of Architects and is a member of the American Institute of Certified Planners, U.S. Green Building Council, and Texas Society of Architects.

Leaving a Legacy

Alumnus supports dreams of future generations of Mavericks

Like many students at UTA, Edward Perez, Jr. ('75 BS, Mathematics) completed his coursework while working full time to support his family. Thanks to his hard work, he went on to have a successful career prior to retiring from AT&T.

Based on his experience balancing personal responsibilities with a desire to pursue higher education, Perez wanted to find a way to provide scholarship support to students studying the physical sciences or nursing while employed. To accomplish this goal, he created a bequest that named UTA as the sole beneficiary of his IRA account upon his passing.

Thanks to his forethought and generosity, UTA was granted more than \$1.5 million—the value of the IRA account—when he died in 2018. The funds have created two endowed scholarships—one for students studying in UTA's College of Nursing and Health Innovation and another for students in the College of Science. Both scholarships are named the Edward and Dorothy

Perez Scholarship Fund in honor of Perez and his late wife, Dorothy.

Scholarships are a critical resource that help UTA recruit and retain the best and the brightest students from around the country and the world while advancing them along their career paths. Thanks to Perez's generosity, promising scholars are receiving the financial assistance they need to achieve their academic dreams and become the next generation of leaders.

To learn more about gifts of retirement assets like IRAs or other planned giving options, visit uta.giftlegacy.com or contact the Office of Gift and Estate Planning at (817) 272-2344 or giftandestateplanning@exchange.uta.edu.



2017

Amy Pace (BS, Exercise Science) has been promoted to fitness manager at 24 Hour Fitness in The Colony, Texas, after more than three years as a master coach.

Chelsea Yerger (MSN, Family Nurse Practitioner; BSN) is a primary care provider with the Family Medicine Center at Limestone Medical Center in Groesbeck, Texas.

2018

Samantha Douty (BA, Journalism) joined *Community Impact Newspaper* as the Lewisville/Flower Mound/Highland Village, Texas, editor. Previously, she reported on education

for the *Victoria Advocate*, a rural South Texas daily newspaper.

Susan Grafton (MSN, Nursing Administration; '17 BSN) works for the California Department of Justice in the Division of Medi-Cal Fraud and Elder Abuse, working side by side with special agents to conduct investigations and serving as the team's medical expert in criminal prosecution.

2019

Brannon Heake (MArch; '17 BS, Architecture) was promoted to professional designer as announced by BOKA Powell, an architecture interior design, planning, and strategic services firm with offices in Dallas, Fort Worth, and Austin.

John Wheeler Jr. ('19 EMBA) is a customer success manager at Alteryx in Plano, Texas.

2020

Megan Cardona (BA, Broadcasting) is a service journalism reporter at the *Star-Telegram*. Previously, she was a reporter for *Community Impact Newspaper* in Pflugerville and Hutto, Texas and at *The Shorthorn*.

Maverick L. Crawford III (MSW) is employed at Special Reach in San

Antonio, Texas, a nonprofit organization providing dynamic enrichment programs for children with special needs and respite for their families. He is a member of Ebony Alliance Advocates for African Americans with disabilities.

Brayden Garcia (BA, Journalism) is an intern for the education lab at the *Dallas Morning News*. He previously was a freelance reporter covering Arlington.

Brandt Wood (BA, Kinesiology) is general manager of World Gym Burleson and a certified personal trainer. A former UTA baseball player, he specializes in baseball and softball programming.

Ben Young (PhD, Kinesiology) won *Experimental Physiology's* prestigious Early Career Author Prize for 2020-21 for his research on blood pressure regulation in Black men. The paper was based on research conducted in the Human Neural Cardiovascular Control Lab at UTA.

2021

Alexia Christine (BS, Interior Design) won first place in the Commercial Student Design Category at 2021 Celebrating Design TX by the American Society of Interior Designers. This award recognized the NEXT Steelcase Project completed in fall 2020 at

Interior Design Studio with Barbara Marini, director of interior design.

Rocio Hernandez (BA, Advertising, and Public Relations) is the insider membership producer for KSAT-12 in San Antonio, Texas. Previously,

she was an intern at the International Center for Journalists and a fellow at *The Texas Tribune*.

Alexia Koltes (BS, Interior Design) won first place in the American Society of Interior Designers' 2021 Dallas Design Ovation Student

Awards for Commercial Design.

Maria Rodriguez (BS, Interior Design) was the second-place winner of the 2021 FORM Student Innovation Competition.

Dayoung "Day" Son (MArch) joined the architectural design staff at Quorum Architects in Fort Worth.

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IN MEMORIAM

ALUMNI

Milton D. Lamm

('65 BS, Mechanical Engineering) 82, July 26, 2021, Arlington.

Clayton Gary Dye

('66 BS, Microbiology) 79, Nov. 16, 2021, Arlington.

Don G. Parvin

('66 BS, Electrical Engineering) 86, Oct. 9, 2021, Rockwall, Texas.

William “Bill” Donald Taylor Jr.

('67 AS, Mechanical Technology) 76, Sept. 3, 2021, Arlington.

Patricia Harlan LeBlanc

('71 BA, English) 97, Nov. 13, 2021, Denison, Texas.

Sheila Faye Richburg Douthit

('72 MA, Political Science) 77, Dec. 2, 2021, Lakeway, Texas.

Beverly Phyllis Grogan

('72 BA, English) 71, Dec. 7, 2021, Grand Prairie, Texas.

Michael Douglas Jarrett

('72 BBA) 72, Dec. 2, 2021, Arlington.

George J. Kale

('72 BA, Mathematics) 74, Oct. 11, 2021, Longview, Texas.

Robert “Bob” Gardner Hunt

('75 MSSW) 81, Aug. 22, 2021, Pearland, Texas.

Sally Jo Pannill Curby

('77 BFA, Art) 88, Oct. 5, 2021, Amarillo, Texas.

Joseph “Phillip” Lee

('78 BBA, Management) 66, Nov. 17, 2021, Edgewood, Texas.

Eric Martin Blanco

('79 BBA, Finance) 68, Sept. 20, 2021, Azle, Texas.

Michael Douglas Lane

('80 BBA, Marketing) 68, Aug. 27, 2021, Irving, Texas.

Vernon Hyliard Sorgee Jr.

('80 MS, '76 BS, Civil Engineering; '65 BS, Physics) 81, June 24, 2021, Phoenix, Arizona.

Walt Schaeper

('81 BA, Economics) 89, Oct. 21, 2021, Lubbock, Texas.

Judy Lynn Bush Stroud

('81 BSN) 60, Nov. 30, 2021, Granbury, Texas.

Mark Edward Kerr

('83 BS, Mechanical Engineering) 64, Oct. 14, 2021, Corinth, Texas.

Debbie Turner McIlroy

('83 BBA, Accounting) 67, Oct. 29, 2021, Bedford, Texas.

Daniel Martin Todd

('83 BBA, Management) 72, Oct. 31, 2021, Quinlan, Texas.

Duane Marlin Weast

('86 BBA, Finance/Real Estate) 63, Aug. 5, 2021, Fort Worth.

Jerry William Chevalier

('88 MSN) 60, Aug. 31, 2021, Dallas.

Jon Charles Turner

('92 BA, Music) 55, Dec. 4, 2021, Terrell, Texas.

Lori Anne Geary

('93 BSN) 51, Oct. 15, 2021, Azle, Texas.

Penny Lynne Fletcher

('00 MS, Education) 54, Oct. 8, 2021, Cheyenne, Wyoming.

Lisa Michelle Robb Frank

('03 BA, English) 41, Dec. 20, 2021, Fort Worth.

Elizabeth Marie Moore

('05 MSW) 52, June 23, 2021, Arlington.

John Frederic Montalto

('18 MSN, '16 BSN) 69, Dec. 30, 2021, Bullard, Texas.

Miranda Elizabeth Mitchell Meckel

('21, BSN) 26, Dec. 13, 2021, Caldwell, Texas.

David “Barry” Dowd

85, Aug. 20, 2021, Jonesboro, Arkansas. Coach Barry Dowd was head basketball coach for Arlington State College from 1966-1976, and he led the team to Division 1 status in 1967-68. In his first season at UTA, he was named Texas College Coach of the Year. Dowd also served as president of the National Association of Basketball Coaches, and in the 1990s, became athletic director for Arkansas State University.

Kimberly Burden Milbauer

('21 MSW, '20 BSW) 52, Aug. 22, 2021, Dallas.

Michael Cao-Truong Nguyen

('22 BS, Exercise Science) 21, Oct. 16, 2021, Arlington

STUDENT

Whitney Nicole Isbell

23, Oct. 11, 2021, Arlington. She was a senior majoring in business and finance.

FACULTY AND STAFF

LeeAnn Dumas Hopper

68, Dec. 19, 2021, Justin, Texas.

Charles A. Lyles

84, Aug. 31, 2021, Terrell, Texas.

Ann McFadyen Millican

63, Aug. 14, 2021, Fort Worth.

Kevin Sloan

63, Oct. 28, 2021, Dallas.

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The Explainer

We are also learning that we can identify people who have a particular difficulty controlling and sustaining their attention via pupillometry. We believe these individual differences will give us insight into the brain systems that underlie clinically significant cognitive deficits and cognitive aging, and thus might be targets for intervention. Specifically, we are working on a theory tethering pupillary fluctuations to differential functioning of the locus coeruleus-norepinephrine system, a nucleus in the brainstem that projects densely into almost all areas of the brain. We believe this system may be crucial for the regulation of attention and its effect on memory.

Much of our work so far as focused on healthy young adults. But in a collaborative project with Hunter Ball, assistant professor of psychology, and colleagues at Washington University in St. Louis, we use pupillometry to understand how attention changes as we enter older adulthood. In one study, we gave younger (age 18-30) and older adults (age 65-plus) a 30-minute reaction time task. This task typically yields a vigilance decrement—people get slower over time because they cannot sustain their attention to it. Interestingly, we found that older adults did not show a vigilance decrement, and their performance was more stable over time than younger adults. Further, older adults' pupil dilations indicated they exerted greater attentional effort, but those dilations happened significantly later in time than younger adults'. Collectively, these results support a processing speed theory of cognitive aging, but that does not necessarily mean we cannot control our attention as effectively. In fact, our ability to sustain our attention might even increase as we get older.



ABOUT THE AUTHOR

Matthew Robison is in his second year as an assistant professor in the Department of Psychology. Before coming to UTA, he completed his PhD in psychology at the University of Oregon and two years of postdoctoral training at Arizona State University. He was born and raised in Baltimore, Maryland, and he lives in Dallas with his wife, Emmy, and their two-year-old son, Henry.

ILLUSTRATION BY PETE RYAN

The Eyes Have It

Tracking Attention and Memory

BY MATTHEW ROBISON,
ASSISTANT PROFESSOR
Psychology

MY RESEARCH FOCUSES on the intricate interplay between attention and memory. Controlling and sustaining our attention can be quite difficult, especially when there is an abundance of competition for it, and my research lab hopes to determine why this is the case.

Recently, I have been using a technique called “pupillometry” to investigate how our attentional state dynamically changes across time and how that affects our ability to remember. In addition to their primary purpose of controlling how much light hits our retinas, our pupils are affected by the activity of brain systems that implement memory and attention. While people complete challenging computerized memory and attention tasks, we measure their pupil diameter at a high frequency (150 times per second) so we can track small and rapid fluctuations. Interestingly, these pupillary fluctuations tend to correspond to moments of inattentiveness, measured through performance on the tasks.



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Look Back

Eta Kappa Nu 1970

Officers of Eta Kappa Nu's Epsilon Mu Chapter—Mike Sowers, Danny Bonham, and Sami Ajan—explain equipment to other members. An Electrical and Computer Engineering Honor Society, Eta Kappa Nu founded its Epsilon Mu Chapter at UTA in 1966. Epsilon Mu is active still today at the University, providing professional, technical, and academic opportunities to electrical and computer engineering students.