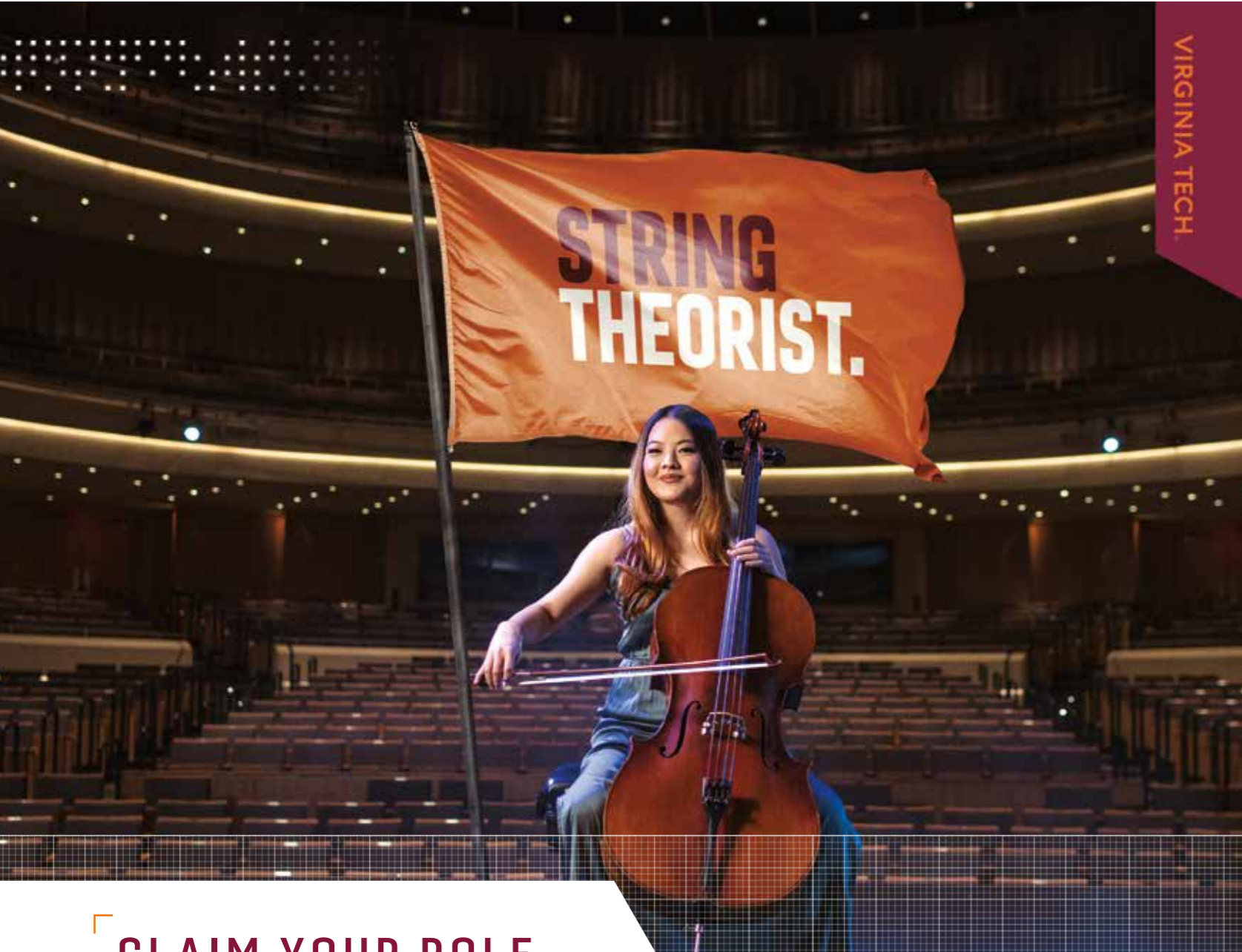


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VIRGINIA TECH

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VIRGINIA TECH

# VIRGINIA TECH

magazine

SUMMER 2019



WORLD AT WAR  
The influence of World War I  
on Virginia Tech

BURNING ISSUES  
A fiery course in forest ecology

IMAGINE  
A DESTINATION FOR CREATIVITY AND INNOVATION  
THAT

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## TUNNEL VISION

Once a picturesque village in France, Vauquois became a World War I battleground. Soldiers from both sides dug tunnels in an attempt to destroy their enemies with underground explosives. Virginia Tech's Vauquois Experience Exhibit uses virtual technology and a physical replica to enable participants, like student Dillon Cutaiar, to learn more about the experiences of the soldiers who lived and fought in the tunnels. Turn to page 34 to read about the immersive exhibit.

This collaborative project is an example of the research that is supported in Virginia Tech's Creativity and Innovation District, which is featured on page 24.

EW

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COURTESY OF JOE WHEELER

ON THE COVER: Created by movement and media artist Scotty Hardwig in collaboration with visual artist Zach Duer, "Body, Full of Time" is a choreographic work that uses motion capture, projection, and interactive avatar designs. Photo by David Franusich, a graduate student in the School of Visual Arts. (at right) Virginia Tech's award-winning FutureHAUS took center stage in New York City's Times Square during NYCxDESIGN in May.





## PRESIDENT'S MESSAGE

WINNING SMILE: Virginia Tech President Tim Sands interacts with colleagues at an event honoring numerous members of the faculty and staff.

# A PIPELINE FOR TALENT

I recently had the privilege of addressing the Class of 2019 during our spring commencement ceremony. The rain didn't dampen their enthusiasm or appreciation for our commencement speaker, Coach Frank Beamer.

These graduates have a lot to be excited about, as they go into the world with tools and experiences that will help them be successful in their careers and life in general.

As members of our newest alumni class plan their post-graduation future, another group of students, the Class of 2023, is preparing to begin their first year as Hokies in the fall. The skills and experiences they will need to be ready for the world in four years are already changing, and Virginia Tech will adapt to support their success and the rapidly expanding industries that will need them.

This is one of higher education's greatest challenges: anticipating the future, staying ahead of the curve, and developing curricular and co-curricular experiences that continue to be relevant and rewarding.

At Virginia Tech, our commitment to excellence and our modern land-grant mission is driving a transformative process to ensure that we continue to provide an extraordinary experience

that meets the needs of our students, communities, and partners.

This summer our Board of Visitors will affirm the university's priorities for the future with a new strategic plan, developed collaboratively with the university community and alumni. The rapidly expanding need for talent in technology and related industries is a primary focus. As I meet with industry, government, and economic development leaders from around the country, it's clear that Virginia Tech is well-positioned to make a difference. As the nation's fifth largest producer of engineering graduates, we are uniquely qualified to support the rapid expansion of the tech sector and related demands across multiple industries.

The development of the Innovation Campus in Northern Virginia, the strategic expansion of our Blacksburg campus, and our advancing health and research presence in Roanoke will maximize our impact. And our dedication to service and outreach in the spirit of our motto, *Ut Prosim* (That I May Serve), will truly differentiate Virginia Tech from the rest as we develop a pipeline of diligent, creative, versatile leaders who are ready to meet the challenges ahead. ■

*Tim Sands is Virginia Tech's 16th president.*

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# LETTERS

## TO THE EDITOR

### WORLD VIEW

I read with interest your article on the trip to South Africa by the 17 agricultural students (VT Monthly, March; also see related story page 7.)

I lived in South Africa for 13 years, coming back to the U.S. in 2010. I've experienced being in a huge combine on a wheat farm, visiting Kruger National Park, living on a mountain alongside baboons outside Cape Town, living next to a grape farm in the wine district, ministering to people in the townships, and experiencing the wonderful people and foods of this richest country of Africa.

I've watched the neighboring country, Zimbabwe, fall from the breadbasket of Africa to 95 percent unemployment and talked with the people who fled to South Africa to find work so they could send money back to their families. Your students are greatly blessed, and I am pleased that they had the opportunity to see the struggles others face.

A great article and well done.

*L. Eugene Hayden '58  
Raleigh, North Carolina*

### VOLUNTEER APPRECIATION

I am the uncle of Justin Graves (spring 2019, page 42.)

I admire all that the Virginia Tech community has done to support my nephew's success academically and professionally.

I thank God for the VT family for creating a place of study that welcomes all. Being from Tennessee, I'm a big Tennessee Vols fan, but I'm also a VT fan. Go HOKIES!

*Jessie J. Gillis Jr.  
Humboldt, Tennessee*



**BEST FRIENDS:** Justin Graves '12, MAED '14, and his dog, Charlotte, visit with Growley II, the canine ambassador for the Corps of Cadets.

ON SAFARI: Virginia Tech students spot a tortoise during a winter break study abroad course in South Africa.

# AROUND THE DRILLFIELD

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## NEWS

### EXPLORING SOUTH AFRICA THROUGH AGRICULTURE

SEVENTEEN VIRGINIA TECH STUDENTS SPENT A PORTION of winter break learning firsthand about South Africa as part of a College of Agriculture and Life Sciences study abroad course on food security, wildlife, and conservation. Over the course of two weeks, the students journeyed through South African agriculture, history, economics, politics, culture, and society.

“Whether it is talking about race and the challenges of re-appropriating farms in the wake of apartheid, or it is examining conservation agricultural practices in an arid country with issues of food inequality, many of the challenges that make South Africa so interesting and dynamic are connected to agriculture. Agriculture is a common thread that unites us all,” said Mark Reiter, an associate professor in the School of Plant and Environmental Sciences and Extension specialist at the Eastern Shore Agricultural Research and Extension Center. He was one of two leaders on the trip. ■



### ADVENTURE AFRICA

Learn more about the study abroad experience and view a video at [vtmag.vt.edu](http://vtmag.vt.edu).

ZEKE BARLOW



**LIFT OFF:** Virginia Tech students Madison Brodnax and Nick Angle conduct a final inspection of the Ceres satellite, which was named for the Roman goddess of agriculture.

### SATELLITE BUILT BY VIRGINIA TECH UNDERGRADUATES TRAVELS TO SPACE

**IN A GIANT LEAP FOR VIRGINIA TECH,** the first satellite built by undergraduate students has launched into space.

The students delivered their small satellite to Houston to be incorporated into NanoRacks' commercially developed CubeSat deployer. Virginia Tech's satellite, along with two satellites from other Virginia universities, launched on the payload section of Northrop Grumman's Antares rocket, headed to the International Space Station.

The project's mission: Obtain measurements of the properties of the Earth's atmosphere in low Earth orbit. As the satellites' orbits decay due to atmospheric drag, the satellite instruments will quantify atmospheric density.

For the past several years, an interdisciplinary team of 50 undergraduate students from the College of Engineering and the College of Science developed CubeSat at

the Center for Space Science and Engineering Research at Virginia Tech, known as Space@VT.

The project has provided students studying aerospace engineering, mechanical engineering, electrical and computer engineering, computer science, and physics with crucial hands-on experience in both spacecraft design and manufacturing.

The initiative began in June 2016 as part of the Virginia CubeSat Constellation, a collaborative effort between the Virginia Space Grant Consortium and four of its member universities—Virginia Tech, Old Dominion University, University of Virginia, and Hampton University. All three of the university-built CubeSats deployed simultaneously into orbit by astronauts aboard the International Space Station, where they will function as a constellation. ■

### MOOSE, THERAPY DOG AND 'TRUE ANIMAL HERO'



**MOOSE'S GREATEST SUPERPOWER** is his unconditional love.

During the past five years, the 7-year-old therapy dog has partnered with Trent Davis (pictured above), his owner and a counselor and coordinator of Virginia Tech's Animal Assisted Therapy at Cook Counseling Center, in more than 5,000 individual and group counseling sessions. Moose also has been part of countless hours of outreach. He has become one of Virginia Tech's most beloved celebrities.

In February, Moose was named the Virginia Veterinary Medical Association's 2019 Animal Hero. The annual award is given to an animal that has performed a heroic act of service or provides daily outstanding service for humans. Moose not only embodies those qualities, but also highlights the association's increased emphasis on mental wellness.

"Moose loves you if you're super smart, and he loves you if you got an F. He loves you if you've been in the hospital, and he loves you if you're a sports star," Davis said. "Moose doesn't care if you have a mental health concern. He doesn't care if you got an A or a B or if you didn't get into college ... That's got a magic to it." ■

### VIRGINIA TECH TO FREEZE UNDERGRADUATE TUITION, INCREASE MINIMUM STARTING PAY FOR STAFF

**TWO RECENT UNIVERSITY MOVES** will benefit undergraduates and full-time staff employees.

In April, the Virginia Tech Board of Visitors voted to freeze tuition for undergraduates for the 2019-20 academic year. Tuition will remain at \$11,420 annually for resident students.

Also, to further support low- and middle-income families seeking a Virginia Tech education, the university will allocate approximately \$5 million in additional resources—the largest one-year increase in its history for the second year in a row—toward financial aid programs next year. This raises total institutional support for student financial aid to more than \$55 million for 2019-20.

In July, Virginia Tech will increase its minimum starting pay for full-time, benefits-eligible staff employees to \$12 per hour. The new pay rate will take effect July 10. Virginia Tech's current minimum starting pay for full-time, benefits-eligible staff is \$10.25 per hour and was last adjusted in May 2018.

This increase will raise the annual salary of approximately 225 employees who currently make less than \$12 per hour. Approximately 312 employees who make between \$12 and \$13.50 per hour will also receive a salary increase. ■



**INFORMING INNOVATION:** University leaders, including Brandy Salmon, founding managing director of the new Virginia Tech Innovation Campus, discuss the future campus during a town hall in Blacksburg.

### VIRGINIA TECH LEADERS HOLD BLACKSBURG TOWN HALL ABOUT INNOVATION CAMPUS

**UNIVERSITY LEADERS SHARED PLANS** and fielded questions about Virginia Tech's new Innovation Campus and the commonwealth's tech-talent pipeline during a town hall in April for the Blacksburg campus community.

Students, faculty, staff, and community members gathered in Haymarket Theatre inside Squires Student Center for the hour-long public event. Questions from the audience ranged from the enrollment timeline and location specifics to details about how the Innovation Campus will benefit students in disciplines other than computer science.

The university expects to begin offering Innovation Campus courses in start-up space in Alexandria beginning in fall 2020. But as part of an agreement with the state to fulfill a critical

tech-talent shortage, Virginia Tech will expand some existing programs at its Falls Church campus this fall, according to Cyril Clarke, executive vice president and provost.

"Construction on the Innovation Campus will happen within the next two to five years, though the full scale of programs will unfold over eight years," said Brandy Salmon, who is founding managing director of the Innovation Campus. In April, David Baker was hired as assistant director of governmental and community affairs, based in Alexandria.

In Blacksburg, Virginia Tech expects to add at least 2,000 more undergraduate students studying computer science, computer engineering, and related disciplines over the next five years, along with 140 new faculty members. ■



**TRANSFORMATIONAL RESEARCH:** Sharon Landesman Ramey, professor and distinguished research scholar at the Fralin Biomedical Research Institute at VTC, is co-leading the nation's first clinical trial for infant stroke victims.

## RESEARCH SCHOLAR CO-LEADS NATION'S FIRST CLINICAL TRIAL FOR REHABILITATING INFANT STROKE VICTIMS

### STROKES ARE DEVASTATING EVENTS

often associated with people over 65. But large numbers of infants have strokes, too.

In the nation's first multicenter pediatric stroke recovery trial, researchers and clinicians from 12 sites across the U.S. will evaluate an innovative therapeutic approach to help 8-month-old to 24-month-old infants who have been diagnosed with strokes.

Sharon Landesman Ramey, a professor and distinguished research scholar at Fralin Biomedical Research Institute at VTC, is one of two lead principal investigators for a five-year, \$13.5 million grant to conduct the trial, called I-AC-

QUIRE. The grant was awarded by the National Institute of Neurological Disorders and Stroke of the National Institutes of Health.

The Phase III trial will examine the effectiveness of pediatric therapy to increase upper extremity skills, gross motor development, and cognition in 240 children nationwide who experienced strokes when they were younger than 4 weeks old.

Findings from the trial have the potential to transform clinical rehabilitation for more than 3,000 newly diagnosed infants in the United States. ■

## VIRGINIA TECH TO OBSERVE INDIGENOUS PEOPLES DAY

**IT'S OFFICIAL—VIRGINIA TECH WILL** observe Indigenous Peoples Day on the second Monday of October each year. As part of the university's ongoing commitment to InclusiveVT, University Council approved a resolution to observe this annual celebration of Native Americans to honor their place in history and culture. InclusiveVT is the university's institutional and individual commitment to *Ut Prosim* (That I May Serve) in the spirit of community, diversity, and excellence. Virginia Tech recognized Indigenous Peoples Day for the first time on Oct. 4, 2018. ■



**DANCE CULTURE:** Virginia Tech's Indigenous Peoples Day celebration featured traditional dances.

## IN OTTER NEWS

### A RIVER OTTER BECAME VIRGINIA

Tech's social media sensation after it was spotted swimming in the Duck Pond in March.

Jim Parkhurst, wildlife Extension specialist in the College of Natural Resources and Environment, said that otters have been observed elsewhere in the Stroubles Creek and Tom's Creek systems.

"I predict that it's a young otter who could soon try to find a mate and start a family in the area around the pond," Parkhurst said.

The otter quickly became an online star. A photo on the university's Instagram account became its top post in the five years since the account was created. A photo on Tech's Facebook page resulted in more than 6,000 reactions, plus more than 1,100 comments and 1,400 shares.

Virginia Tech asked Hokies for name suggestions, resulting in a list that included Ot Prosim, Otter Sandman, Alma Motter, and Otterson Caldwell, among others. In a vote across Virginia Tech's social media platforms, Hokies overwhelmingly chose "Otter Sandman" as the otter's name.



AMANDA LOMAN, RICHARD RANDOLPH, KRISTI DECOURCY, EW



## MORE THAN 6,600 HOKIES DONATED \$2.8 MILLION ON GIVING DAY

**THE CALL WENT OUT AND HOKIES** joined forces around the globe to answer in resounding fashion.

More than 6,600 people gave during Virginia Tech's Giving Day, which began at noon on March 19 and ran through noon on March 20. The joint effort far surpassed last year's participation total of 4,617 people and topped this year's goal—5,500—by more than 20 percent.

The landmark participation during the second-annual 24-hour fundraising campaign resulted in \$2.8 million given to more than 500 areas across the university.

The Giving Day effort included more than 340 ambassadors, who not only gave but encouraged others to join in, and nearly 120 matching or challenge gifts, roughly triple the 2018 total. Those gifts spanned 22 colleges and programs.

Theresa Myers, a spring 2019 graduate in marketing who chaired the iSupport student giving campaign, said her message to peers was simple.

"If we didn't have this outside support, maybe half of your friends wouldn't be able to attend such a great university," Myers said, referencing the fact that more than 50 percent of students receive some type of financial aid. ■

**HOKIES LOVE TO GIVE:** Virginia Tech's annual Giving Day for 2019 began at noon on March 19 and ended at noon on March 20.

**EXTRA, EXTRA!**  
READ ALL ABOUT IT.  
For additional details, images, and videos related to the stories featured in Drillfield, go to [vtmag.vt.edu](http://vtmag.vt.edu).



## T. REX HAS A 3-FOOT-TALL RELATIVE

A NEW RELATIVE OF THE *TYRANNOSAURUS rex*—much smaller than the huge, ferocious dinosaur made famous in countless books and films, including “Jurassic Park”—has been discovered and named by a Virginia Tech paleontologist and an international team of scientists.

The newly named tyrannosauroid dinosaur—*Suskityrannus hazelae*—stood roughly 3 feet tall at the hip and was about 9 feet in length, the entire animal only marginally longer than the skull of a fully grown *T. rex*, according to Sterling Nesbitt, an assistant professor with the Department of Geosciences in the Virginia Tech College of Science.

In all, *Suskityrannus hazelae* is believed to have weighed between 45 and 90 pounds, compared with a roughly 9-ton *T. rex*. Its diet likely consisted of the same as its larger meat-eating counterpart.

Nesbitt found the fossil at age 16 as a high school student participating in a dig expedition in New Mexico in 1998. Nesbitt and Doug Wolfe, who led the expedition, authored the paper, which was published in *Nature Ecology & Evolution*. ■



DIG IT: Sterling Nesbitt, an assistant professor, discovered a new relative of the *Tyrannosaurus rex*.

TECH TIMES TWO: Mercedes Robinson, a student at the Virginia Tech Carilion School of Medicine, is the first to earn an MBA through a new program that combines medicine and business.

## THIRD-YEAR MEDICAL STUDENT EARNS MBA THROUGH NEW PROGRAM

LAST YEAR, MERCEDES ROBINSON, A third-year student at the Virginia Tech Carilion School of Medicine, set her white coat aside and picked up a briefcase to pursue an MBA through Virginia Tech’s Pamplin College of Business.

Robinson took advantage of a program, developed by both schools, to help future physicians attain skills needed to navigate challenges in health care management.

“Earning an MBA really opened up an entire new world for me,” Robinson said. “I came away with more foundational business skills and a better understanding of how organizations operate.”

The combined program enabled her to earn her degree in one year, including a few courses she took the summer prior to starting the fall semester. Classes met one weekend per month and rotated meeting locations between Blacksburg, Roanoke, and Richmond.

Robinson said one person who had a particular influence on her decision to do the program was Cynda Johnson, founding dean of the Virginia Tech Carilion School of Medicine, who has both M.D. and MBA degrees.

“Seeing how successful she’s been and the career path she has taken was definitely inspiring for me,” Robinson said. ■

## LAURA DELAMONTE NAMED DEAN



FOLLOWING A NATIONAL SEARCH, Virginia Tech Executive Vice President and Provost Cyril Clarke has appointed Laura Belmonte as dean of the College of Liberal Arts and Human Sciences. Belmonte will begin at Virginia Tech on Aug. 1.

“Laura’s strong record of scholarship, leadership, and achievement made her the ideal candidate to lead our College of Liberal Arts and Human Sciences,” Clarke said.

Belmonte currently serves as associate dean for instruction and personnel at Oklahoma State University.

“I am honored to lead a college with a remarkable legacy of outstanding research and innovative teaching addressing all facets of the human experience,” Belmonte said. “I’m thrilled to support Virginia Tech’s visionary leadership and world-class partners and people in advancing knowledge, improving society, and celebrating diversity.”

Rosemary Blieszner, Alumni Distinguished Professor of Human Development, has served as dean of the college since 2017 and will be returning to the faculty in the fall.

Belmonte holds a bachelor’s degree in history from the University of Georgia and a master of arts and Ph.D. from the University of Virginia. ■

RYAN ANDERSON, EW

VIRGINIA TECH VIDEOGRAPHERS HAVE BEEN HARD AT WORK CAPTURING THE UNIVERSITY’S NEWS AND EVENTS. WATCH THESE VIDEOS AND MANY OTHERS AT [VIDEO.VT.EDU/](http://VIDEO.VT.EDU/).



### FELINE OBESITY STUDY

“Fat cats” and their owners participated in a study conducted at the Virginia-Maryland College of Veterinary Medicine at Virginia Tech to discover how owners’ perceptions of their cats’ quality of life were influenced by adding food toys to the cats’ weight-loss regimen.



### HOKIES GATHER FOR SPRING WEEKEND EVENTS

Thousands of Hokies flocked to campus on April 13 for Spring Weekend events. The day began with the 3.2 mile Run in Remembrance, with more than 14,000 people walking and running. A family tailgate followed, along with the Hokies spring football game.



### ACCELERATE FESTIVAL 2019

Virginia Tech and the Smithsonian’s National Museum of American History held the ACCelerate: ACC Smithsonian Creativity and Innovation Festival on April 5-7 in Washington, D.C., which showcased research in science, engineering, arts, and design.



### BREAKING THROUGH ADVERSITY: ANDREW YOUNG’S INSTRUMENTAL INSPIRATION

Andrew Young, a junior at Virginia Tech, was born without a left arm from the elbow down. He taught himself how to play guitar. Now he’s in a band and performs solo.



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HOW TECH TICKS

# CREATIVE CAPS



## CAPPING IT OFF

For photos and video from spring commencement 2019, go to [vtmag.vt.edu](http://vtmag.vt.edu).

GRADUATION CAPS ARE MORE THAN JUST HEADPIECES THAT COMPLETE THE TRADITIONAL REGALIA.

FOR MANY HOKIES, THE CAPS ARE WINDOWS THAT OFFER A GLIMPSE OF THE WEARER'S PERSONAL STYLE.

STUDENTS DECORATE MORTARBOARDS WITH MESSAGES THANKING MOM AND DAD, DECLARING FUTURE PLANS, SHOWCASING HOKIE PRIDE, OR FEATURING ANY NUMBER OF CREATIVE INSPIRATIONS. ■ JB



CHRISTINA FRANUSICH, JACK MAYER - GOVERNOR'S OFFICE, EW, LOGAN WALLACE, DM, EW, JIM STROUP, DM, EW, SKYLER TAUBE



# THE ADVANTAGE LINE

## SAY WHAT?

PREPARING TO PRONOUNCE THOUSANDS OF GRADUATES' NAMES



Joe Merola Cayce Myers Katie Wells

**COMMENCEMENT WOULDN'T HAPPEN** each year without a certain contingent of Virginia Tech faculty—the ones who read the graduates' names aloud. Each year, as faculty readers prepare to pronounce thousands of names in front of commencement crowds, they pore over lists of graduates, scribbling meticulous phonetic notes and praying that they won't get sick or lose their voices.

Joe Merola, a chemistry professor, has been reading names for the Graduate School for at least 15 years. Cayce Myers, associate professor of communication, reads names for the Department of Communication, while Katie Wells, director of advising for the Pamplin College of Business, splits the list of more than 1,000 Pamplin graduates with two other advisors this spring.

### WHY IS PRONOUNCING A GRADUATE'S NAME CORRECTLY SO IMPORTANT?

**MEROLA:** "They've worked hard. For international students, their families will have come from all over the world. The worst thing that could happen to them is if you mess up their name, their moment in the sun. Their time on stage is fleetingly small."

### HOW DO YOU PREPARE TO PROPERLY PRONOUNCE SO MANY NAMES?

**MYERS:** "I have the students call me on my office phone and leave a voicemail of their pronunciation if they think that it will be mispronounced. I then will go through the cards [with graduates' names on them], and if I think their name will be mispronounced, I email them and have them call me. I will go back and listen to it [voicemail] five or six times. Also, on the day of graduation, I get their attention, and I say, "I am reading your name, and if you haven't called me or emailed me, let's get it done now."

### WHAT TIPS DO YOU TRY TO REMEMBER WHEN YOU ARE ANNOUNCING NAMES?

**MEROLA:** "You don't want to get too monotonous. There's a real problem because you're doing name after name after name. You really do want to find a way to make that student special, and so you try to pronounce it [the name] with confidence, properly, and maybe if I can manage it, with a little twinkle in my voice."

**WELLS:** "You've just got to go with what comes out. You can't try to go back. Just say it and say it with confidence. Say it once; say it loudly and with conviction."

### WHAT DO YOU ENJOY ABOUT YOUR COMMENCEMENT ROLE?

**MEROLA:** "Over the years of being here, opportunities that I've been given to serve, I cherish, I really enjoy. In this case, I just love doing it, and that term labor of love is really true. As long as I don't screw up, I know that I'm helping and contributing to the day, which is a very big day for some people." ■ JB

**AFTER A CO-OP EXPERIENCE AT WALT** Disney World her sophomore year, Amelia Griese '19 realized she'd be in Blacksburg for five years to finish her major in mechanical engineering and minors in classical studies and art history, so she looked for ways to get more actively involved on campus.

She settled on sport clubs. And she picked one she had never played—rugby. "Only two on our team had played rugby before college, so everybody comes in at the same level," Griese said.

As a senior, Griese helped lead the team to a spot in the national club rugby championship game (they lost to Brigham Young) while serving as one of four co-captains and the match secretary, a position that required her to schedule matches and arrange all travel logistics.

"It falls on the four of us to make this team work, which can be a handful when we're full-time students and we're trying to play the game," Griese said.

The skills she honed helped her land a job after graduation as a production supervisor for Anheuser-Busch.

"It's easy to fix a machine, but people are more dynamic," Griese said. "Rugby's given me great experience dealing with people. It also gave me a lot of real-world challenges learning to manage my time and prioritize. It's a lot of work, but it's very rewarding."

Julie Rhoads, Virginia Tech assistant director for sport clubs, and Megan Hughes, associate director for administrative services in Recreational Sports,

see those rewards every day. Their office helps with guidance and logistics, but it's the 1,100 student-athletes who participate on one of the 29 different teams at Virginia Tech who make the decisions and run the teams.

"We know that people who are involved in activities like sport clubs have a better sense of belonging at the university, and they feel more supported," Hughes said. "The grittiness required can translate to other areas, like in the academic realm."

Rhoads was president of her college's cheerleading club team, which helped lead her to her current career. "It was 'Oh, I can do this in a real-world setting!' It's kind of awesome," she said.

Unlike varsity student-athletes, many of whom get at least a partial scholarship, sport club participants pay to play, with

annual dues ranging from \$50 to \$2,500 (rugby dues are \$100). Teams do get a stipend from the university, but they also raise money for travel, meals, and lodging.

Participants also find the training and conditioning time to be competitive. Rhoads points out that the women's field hockey team won a national championship in 2018, and 18 of 29 clubs went to their respective national tournaments. And athletes in lesser known sports, such as rugby, fencing, and cricket, get a kick out of just introducing more people to their passion.

"What I was looking for in team sports is accountability to other people and building relationships," Griese said. "I can walk on campus and there's at least 50 people I know really well." ■ RL

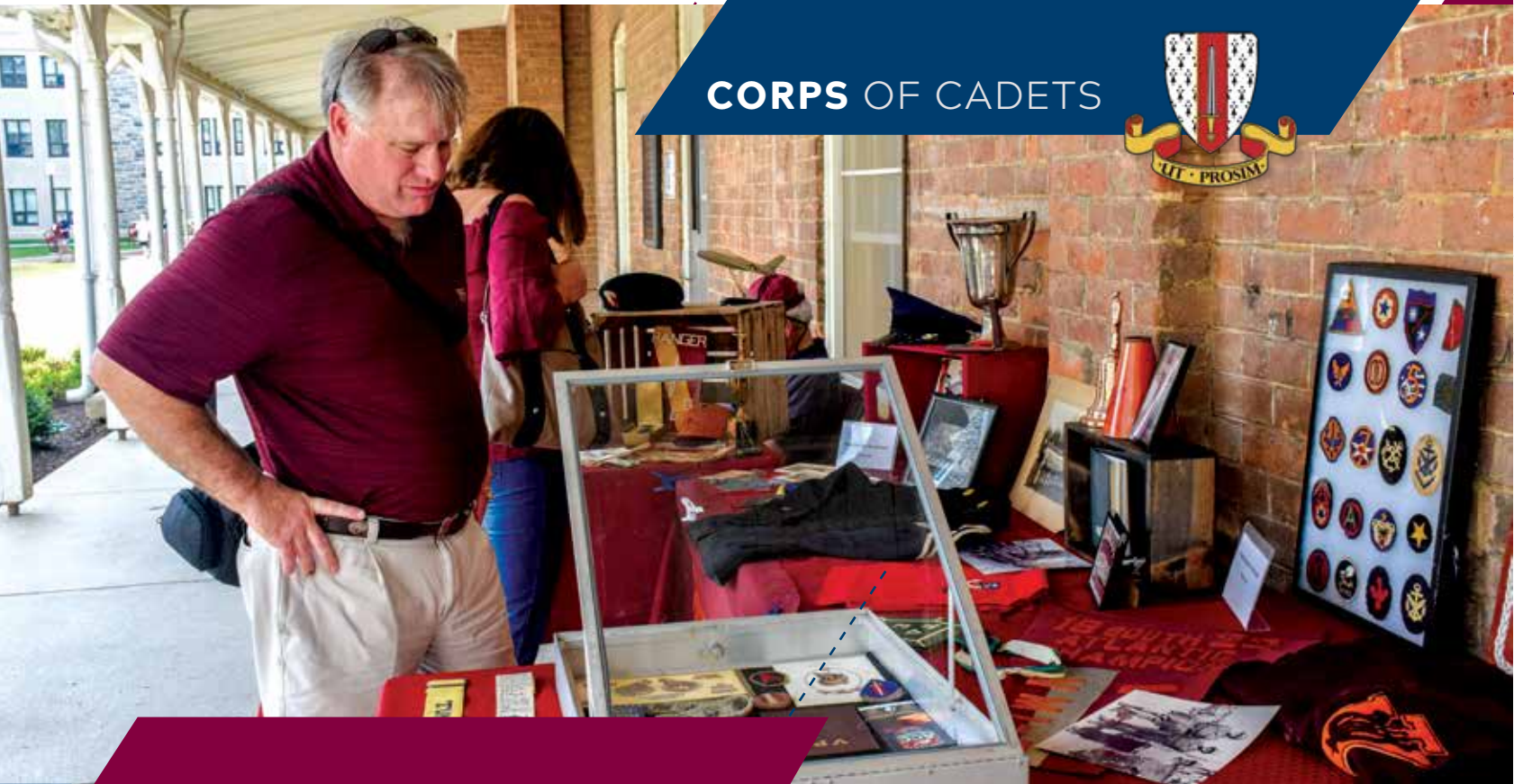


BONUS POINTS: Amelia Griese (right) was one of four captains for the rugby team.

LOGAN WALLACE, MICHAEL KIERNAN, OLIVER MEREDITH, NOSHIN ABEDIN

### IMPORTANT PRONOUNCEMENT

Read the full story at [vtmag.vt.edu](http://vtmag.vt.edu).



## CORPS OF CADETS



# MUSEUM ON THE MOVE

**IF YOU SPOT A BRIGHT ORANGE TENT** while strolling across Virginia Tech's campus this summer, step inside.

You may find pennants hanging along the tent's edge, an alumnus's World War II uniform, or candid photos from the days when Lane Hall was still the cadet barracks. You might even see yourself starting back from one of the photos.

The Corps of Cadets' Pop-Up Museum started two years ago as a way to evoke memories and showcase a few of the items from the Corps of Cadets Museum.

The traveling mini-exhibition celebrates alumni, veterans, and history. The goal is to provide the community with an opportunity to learn about the corps and uni-

versity history through artifacts that date from as far back as 1872, when Addison Caldwell enrolled as the first student.

Educational programming is the cornerstone of museum curation, and the pop-up museum creates spontaneous opportunities for the curator and cadet historians to talk with visitors about the corps' history and its foundational ties to the university.

A permanent museum space will be housed within the Corps Leadership and Military Science Building, the third building planned in the revitalization project that brought two new residence halls to the Upper Quad. Pearson Hall opened in 2015, and New Cadet Hall opened in

2017. These buildings surround Lane Hall, the original barracks, which is now on the commonwealth and federal lists of historic buildings.

Meanwhile, corps artifacts are on exhibit on the fourth floor of Newman Library. Although space is limited in Newman, there are acres of campus on which to expand the museum—if only for a few hours—through the pop-up museum. ■

*Samantha Riggin is the Corps of Cadets' museum curator.*

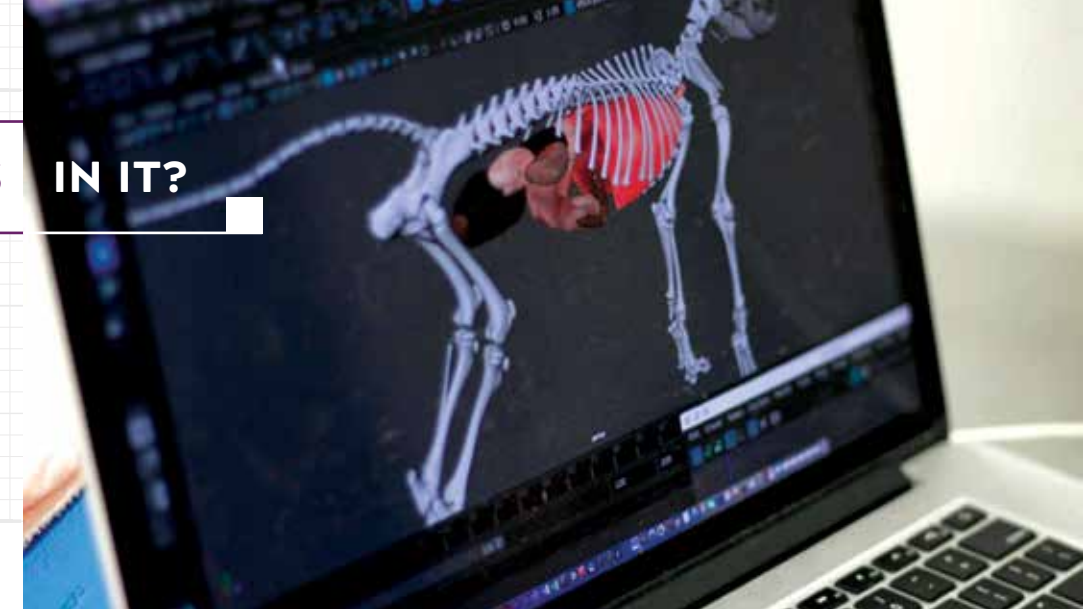


### POPPING UP

Look for the Pop-Up Museum during reunion weekends and other large events on campus.

SHAY BARNHART

## WHAT'S IN IT?



# VIRTUAL REALITY

TECHNOLOGY THAT'S GONE TO THE DOGS

### CLICK THROUGH LAYERS OF TISSUE.

Zoom in on a kidney.

Walk inside a rib cage.

First-year students at the Virginia-Maryland College of Veterinary Medicine at Virginia Tech are getting an up-close and rare look at what is inside a dog's body. Virtual reality (VR) makes it possible.

Last fall, aspiring veterinarians who were enrolled in a physical exam and clinical skills course taught by Michael Nappier, an assistant professor of community practice, began using VR equipment during their lab time to help them visualize a mid-sized dog's body parts. The 3D moving picture of a dog standing on all fours was the brainchild of Thomas Tucker, an associate professor in Virginia Tech's School of Visual Arts and a fellow with the Institute for Creativity, Arts, and Technology.

Tucker and five graduate and undergraduate students, crafted the images using CT scans. The project team also worked with Bonnie Smith, an associate professor of anatomy in the college's Department of Biomedical Sciences and Pathobiology, to identify the bones in a dog's body and to position them correctly.

Unreal Engine, a software used by video game developers, powers the technology.

By wearing VR glasses, clicking a button, and moving around, students can navigate through layers of tissue, zoom in on specific organs, and step into parts of a virtual dog's body. There also is a specialized section that allows for a deeper view into the dog's skull.

"I literally stood inside the rib cage," said veterinary student Sara Farthing, after she donned the VR glasses and followed the dog's image floating virtually in front of her.

VR technology creates an immersive experience, and related applications are enhancing education throughout the university.

Veterinary students have access to the anatomical VR technology through the college's library for use as they study.

But the veterinary VR doesn't stop with dogs. Tucker is leading a group of students and veterinary school faculty who are creating a VR cow for instructional use. They hope to complete it by the summer's end.

And look for a VR horse in the future.

■ JB



**INSIDER INFORMATION:** Victoria Umana uses virtual reality technology, which received funding through a University Libraries Open Education Faculty Initiative Grant.



### UNLEASHED

Watch as veterinary students experience anatomy virtually. View a video at [vt.mag.vt.edu](http://vt.mag.vt.edu).



## OTHER-FOCUSED

“

THERE'S A LOT OF TALENT OUT THERE IN KIDS WITH SPECIAL NEEDS. THEY SHOULDN'T BE DISCREDITED.”

Saket Bikmal, student

**SAKET BIKMAL, A RISING SOPHOMORE** studying computational neuroscience, is living a life focused on others.

Inspired by his younger brother, Himal Bikmal, who was diagnosed with low-functioning autism at an early age, and the corresponding challenges his family faced trying to secure treatments and needed accommodations, Bikmal has developed a commitment to helping individuals affected by the disability.

Although Himal Bikmal cannot do many things for himself, he can paint. His art led Saket Bikmal and their father, Harish Bikmal, to co-found Zenaviv, a business that helps artists with special needs sell their work. According to the company's website, “The name Zenaviv is derived from the Japanese word ‘zen,’ meaning enlightenment, and the Hebrew word ‘aviv,’ meaning spring, or colors of spring.”

More than 66 percent of the profits from the art sales go directly to the artists, with the rest going back into the company to continue their mission. Zenaviv's clients include businesses and homeowners.

Bikmal's education at Virginia Tech is a step toward his long-term goal to synthesize business and scientific research to become a “neuopreneur”—a designer of biomedical devices to help those with special needs. Bikmal is passionate about

increasing awareness of spectrum disorders like autism. His goal is to emphasize each individual's unique abilities and skills, so that they are not overlooked in the broader context of the disability.

“There's a lot of talent out there in kids with special needs,” said Bikmal. “They shouldn't be discredited.”

Bikmal was drawn to Virginia Tech's specialized neuroscience program and the opportunities to explore relationships between computers, the brain, and disease pathology. As a first-year student, he was involved with Bio-activity, a biomedical design team, as well as the Neuroscience Club. While he was still in high school, Bikmal researched synthetic neurochemistry with the National Institutes of Health and tested drug effects on non-small cell lung cancer with the Georgetown Lombardi Comprehensive Cancer Center.

In addition to continuing work with Zenaviv, Bikmal has set his sights on medical school and starting his own company. Whatever the future may hold, Bikmal's desire to serve is fueling his direction.

“Even if I fail at one thing, I can always find another way to help people,” he said. ■

*Grace Baggett was a student intern with Virginia Tech Magazine.*

# A POWERFUL NEW GIFT OPTION

THE VIRGINIA TECH FOUNDATION DONOR-ADVISED FUND



**DEBBIE TILLOTSON '78 WAS LOOKING** for a way to support the Corps of Cadets and engage her son and daughter-in-law in the family tradition of giving back to Virginia Tech.

She found it by becoming the first Hokie to take advantage of the Virginia Tech Foundation Donor-Advised Fund, a new way to structure gifts to the university.

“Working with the university's Office of Gift Planning was quick and easy, and my donor-advised fund and stock transfer were handled efficiently,” Tillotson said.

Donor-advised funds allow people to receive immediate tax benefits from a making a gift and still take their time to

decide which causes to support. Over the course of this decade, their popularity has grown dramatically. Across the nation, they accounted for 4.4 percent of charitable giving by individuals in 2010. By 2017, that had grown to 10.2 percent, according to the National Philanthropic Trust.

Tillotson has used her fund to support several programs in the Corps of Cadets, including an Emerging Leader Scholarship and the Corps Leadership and Military Science Building project. Her son Ian '15 and daughter-in-law Allison '15, both serving in the Air Force, used the fund to establish a Giving Day challenge to help motivate other corps alumni and cadets to make gifts, too.

To learn more about the Virginia Tech Foundation Donor-Advised Fund, visit [give.vt.edu/daf](http://give.vt.edu/daf), email [giftplanning@vt.edu](mailto:giftplanning@vt.edu), or call 540-231-2813.



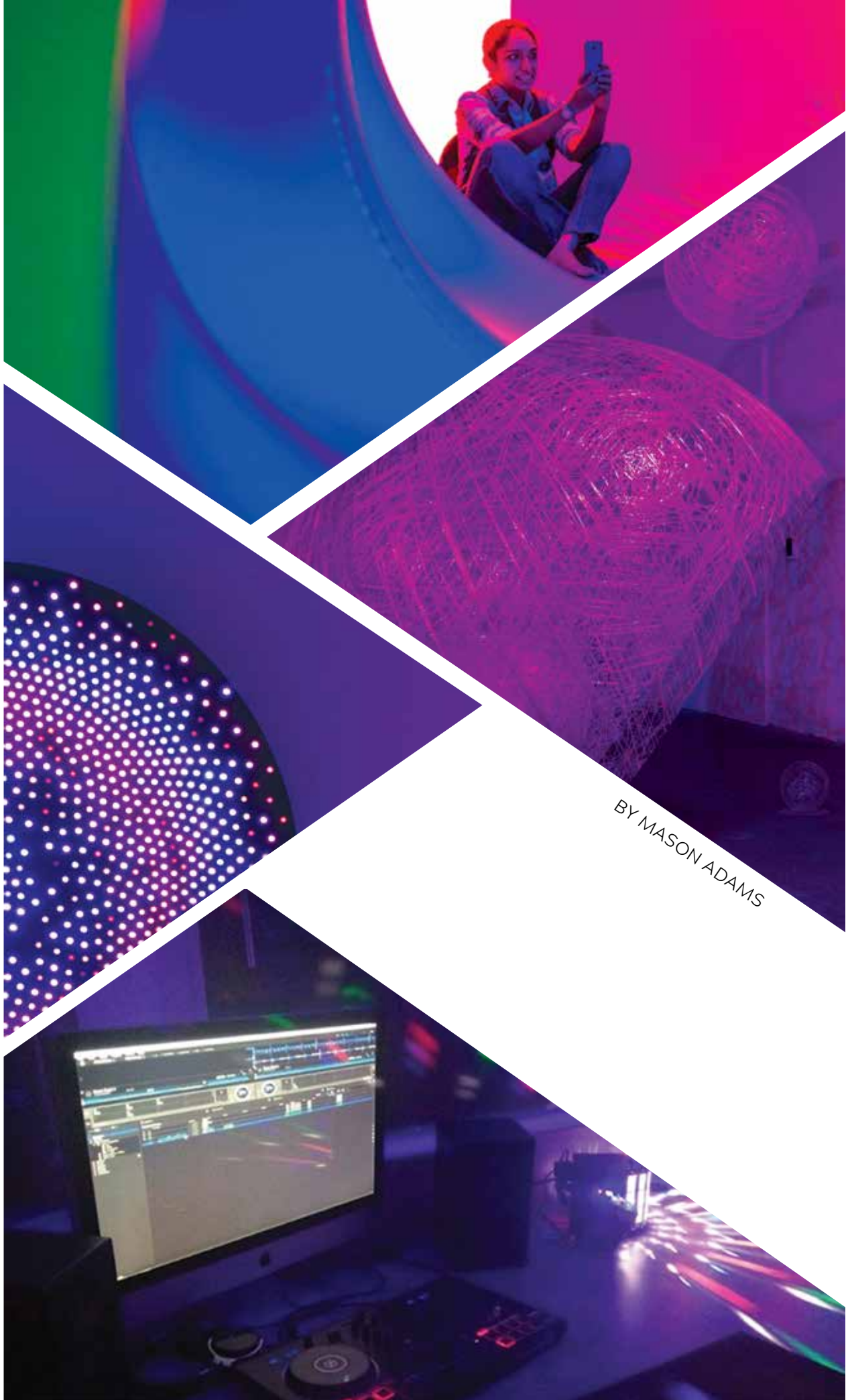
The donor-advised fund also proved an ideal way for Minoka Gunesequera '13 to structure a gift of real estate to support the Cranwell International Center.

Gunesequera's parents moved from Sri Lanka to Blacksburg in 1984 so her mother could earn a Ph.D. in biochemistry. They were among those cheering when the Cranwell International Center opened in 1986, and Gunesequera remembers finding a sense of community through that center as a child. Now, the Bhadra and Chrys Gunesequera Memorial Excellence Fund helps others feel equally at home.

“I caught the ‘giving bug’ and hope to inspire others,” Gunesequera said. “The process was easier than I expected, and someone walked me through it. There was this journey of thinking about what it means to leave a legacy and serve others.” ■

# IMAGINE THAT

A DESTINATION FOR CREATIVITY AND INNOVATION



BY MASON ADAMS

LOGAN WALLACE, AMANDA LOMAN, OC, KYRIAKOS TSOUKALAS, LOGAN WALLACE, "BODY FULL OF TIME" - ZACH DUER, SCOTTY HARDWIG

**O**N THE EASTERN EDGE OF VIRGINIA TECH'S BLACKSBURG CAMPUS, WHERE THE UNIVERSITY INTERSECTS WITH DOWNTOWN, THE VIEW OF THE FUTURE IS CLEAR.

HERE, THE UNIVERSITY IS MAPPING OUT A PLAYGROUND FOR THE INNOVATORS, INVENTORS, AND MAKERS WHO WILL BUILD THE WORLD OF TOMORROW. FINDING SOLUTIONS FOR COMPLEX PROBLEMS THAT RANGE FROM WATER CONSERVATION AND FOOD SUPPLY CHAINS TO ENERGY DEMANDS AND TRANSPORTATION CONGESTION WILL REQUIRE EXPERTISE FROM MANY SOURCES. FOR A GLOBAL COMMUNITY, THERE IS NO ONE-SIZE-FITS-ALL STRATEGY. BY CREATING SPACES THAT BRING TOGETHER POETS AND SCIENTISTS, ENGINEERS AND ARTISTS, AND CHEMISTS AND HISTORIANS, VIRGINIA TECH IS LEVELING THE FIELD, ADVANCING CROSS-CULTURAL RESEARCH AND DEVELOPMENT, AND EMPHASIZING THE COMBINED STRENGTHS OF SCIENCE, TECHNOLOGY, BUSINESS, AND THE HUMANITIES.

THE \$250 MILLION CREATIVITY AND INNOVATION DISTRICT CAPITALIZES ON EXISTING PROGRAMS AND FACILITIES WHILE CREATING NEW SPACES AND MAKING LARGE-SCALE CHANGES TO OTHERS. THE GOAL: TO GALVANIZE INNOVATION, FROM CONCEPTION TO COMMERCIALIZATION.



THANASSIS RIKAKIS, PROFESSOR OF BIOENGINEERING AND PERFORMING ARTS

**"WE CREATED ASPIRATIONAL PLANS WHERE THE CREATIVITY AND INNOVATION DISTRICT WOULD BECOME A KEY FEEDER OF INNOVATION TALENT FOR THE METROPOLITAN D.C. AREA, AND THE PARTNERSHIPS AND RESOURCES THAT WOULD DEVELOP IN METROPOLITAN D.C. WOULD SIGNIFICANTLY SUPPORT THE DISTRICT IN BLACKSBURG."**

Virginia Tech's landmark district will be anchored by the Moss Arts Center; the Institute for Creativity, Arts, and Technology (ICAT), which includes the Center for Human-Computer Interaction and the Center for Research on SEAD Education; the School of Performing Arts, including Theatre 101; and the School of Visual Arts, including the Armory Gallery.

Squires Student Center, Newman Library, the Graduate Life Center at Donaldson Brown, and the Media Building will round out the district. Several will retain their traditional functions while offering enhanced spaces to foster creativity and innovation. The Media Building, however, will undergo a comprehensive renovation to support the initiative.

"What we're developing with the physical district and technologies is all about student learning and giving students the opportunity to develop in creative ways," said Ruth Waalkes, associate provost for the arts and executive director of the Moss Arts Center. "It's really about being able to engage with people across difference. That can mean art students working with engineers or computer scientists or collaborating across different languages or cultural practices."

According to Cal Ribbens, head of the Department of Computer Science, "identifying a particular region of campus and intentionally creating space for this kind of learning will create more opportunities and a bigger impact that will affect entrepreneurship, partnerships with the private sector, and recruitment of talented students, staff, and faculty."

"[The district] engages students in tackling broad problems that span disciplines. It's important for students to get exposure working with people who think differently, who communicate differently, because they're going to be part of diverse teams throughout their working lives," Ribbens said.

Although the Creativity and Innovation District exists in a defined location on campus, the environment supports technology and other features that reach far beyond Blacksburg.

"Bridge spaces" will allow companies, students, faculty, and other scholars to work in close proximity to create, incubate, and bridge ideas into viable businesses. The collaborations will connect to existing initiatives in Blacksburg, Roanoke, and Northern Virginia.

"It's not a district that says, 'We're going to do this particular project,'" said Knapp. "Instead, we're saying, 'If you're interested in the creative process, from imagination to innovation, this is where you come to work with a like-minded community, no matter what your disciplinary origins.'"

The district was conceived by Thanassis Rikakis, professor of bioengineering and performing arts and former provost, as a



geographic extension of President Tim Sands' Beyond Boundaries vision—specifically the concept of students and faculty from a variety of backgrounds living and working together in a shared community. The idea was to combine areas of strength for Virginia Tech so that individuals working across disciplines can come together and create. Additionally, Rikakis wanted the district in Blacksburg to engage with Virginia Tech's outposts in Roanoke and Northern Virginia.

"We created aspirational plans where the Creativity and Innovation District would become a key feeder of innovation talent for the metropolitan D.C. area, and the partnerships and resources that would develop in metropolitan D.C. would significantly support the district in Blacksburg," Rikakis said.

With a proven track record for projects that transcend traditional boundaries, ICAT stands as an example of how connections provide value for university researchers, students, and private partners. The institute fosters creativity and critical reflection in a living illustration of Sands' Beyond Boundaries vision.

Attracting scholars from around the globe who work side-by-side in campus facilities such as the Cube at the Moss Arts Center, ICAT extends the reach of the district to the world. In April, ICAT partnered with the Smithsonian Lemelson Center for Invention and Innovation to present the ACCelerate: ACC Smithsonian Creativity and Innovation Festival at the National Museum of American History in Washington, D.C. The festival showcased creative projects emerging from the nine public and six private schools that make up the Atlantic Coast Conference.

Additionally, the Creativity and Innovation District will expand creative influences from the eastern side of campus. A 596-bed residence hall is among the buildings planned for the area. The new construction, which is expected to be finished by summer 2021, will house two living-learning communities: Studio 72, for students interested in the arts and design, and Innovate, for those who want to pursue entrepreneurship. Student-athletes will also live in the residence hall.

Nicky Cruz, a rising junior pursuing degrees in fashion merchandising and design and multimedia journalism with a minor in popular culture, lived in Studio 72, which is currently located in Pritchard Hall, during the 2018-19 academic year.

"Studio 72 is open to all majors, so we have a wide range of students studying different subjects," Cruz said. "Seeing how art, science, engineering, or any other major differs with respect for creative process has introduced me to new ways of thinking and new points of view."

Ella Davis, a rising junior majoring in geoscience, chose Studio 72 as a way to keep in touch with her artistic interests even as she pursued a science degree. Davis said the blend of students pushes her to communicate more effectively about her scientific work and has helped her better understand how concepts transcend disciplines.

"I think my favorite thing I've discussed with other people so far is how we all use very similar vocabularies, but we all have situational definitions," Davis said. "How I talk about the geometry of rock beds and faults uses the same words an architecture major might when talking about the geometry of their designs, but we mean two completely different things."

The new residence hall will boast 30,000 square feet of public space devoted to artistic, performance, and research-based experiences to support engagement and meaningful connections within the district, Blacksburg, and the world.

Plans for the facility include apartments for residential faculty. The special living arrangement, which exists in other environments across campus, will allow instructors to be fully immersed and to engage with students in ways that will enrich the community.

While the eastern side of campus is abuzz with construction and planning activities associated with the developing district, Virginia Tech leaders, faculty, and researchers are already recognizing the value of these creative collisions. The resulting projects and their outcomes will define and describe success for the district.



LOGAN WALLACE, JIM STROUP

LOGAN WALLACE

# RESEARCH PROJECTS

WHAT HAPPENS WHEN GREAT IDEAS MEET GREAT MINDS?



THE CREATIVITY AND INNOVATION DISTRICT BRINGS TOGETHER SCIENTISTS AND ARTISTS COMMITTED TO EXPANDING KNOWLEDGE. THESE RESEARCHERS MAY EMPLOY NEW METHODS OR INTERPRET RESULTS THROUGH SEEMINGLY DISPARATE LENSES.



EW, LOGAN WALLACE

## SHAKESPEARE'S GARDEN

This theatre installation, created by a team of faculty from the School of Performing Arts, the School of Visual Arts, and ICAT, used the spatial audio capabilities of the Cube to create a specialized immersive sound and visual experience. Participants meander along a path through the virtual space, listening to Shakespearean texts performed by Virginia Tech students.

## HONEYBEE DANCES

Two assistant professors and their teams decoded the language of honeybees in a way that allows scientists around the world to interpret the insects' highly sophisticated and complex communications. The researchers discovered a universal calibration that translates honeybee communications across sub-species and landscapes. By deciphering the messages encoded in the insects' movements, called waggle dances, the teams hope to better understand the insects' preferred forages and the locations of these food sources.

## BELLEIIVR

An ICAT grant funded the creation of BelleIIVR, which allows the study of subatomic particle physics using virtual reality. The team used the Cube to create a virtual supercollider that allowed an untethered, locomotive virtual-reality exploration of particle physics. Now, the team has created a computer version and is working on one for mobile devices.

## PROSTHETIC SENSORS

A Virginia Tech professor and a team of undergraduate student researchers have made inroads in integrating electronic sensors with personalized 3D-printed prosthetics, which could one day lead to more affordable electric-powered prosthetics.



### OUTSIDE THE BOX

Learn more about the projects, events, and classes in the Creativity and Innovation District at [vtmag.vt.edu](http://vtmag.vt.edu).

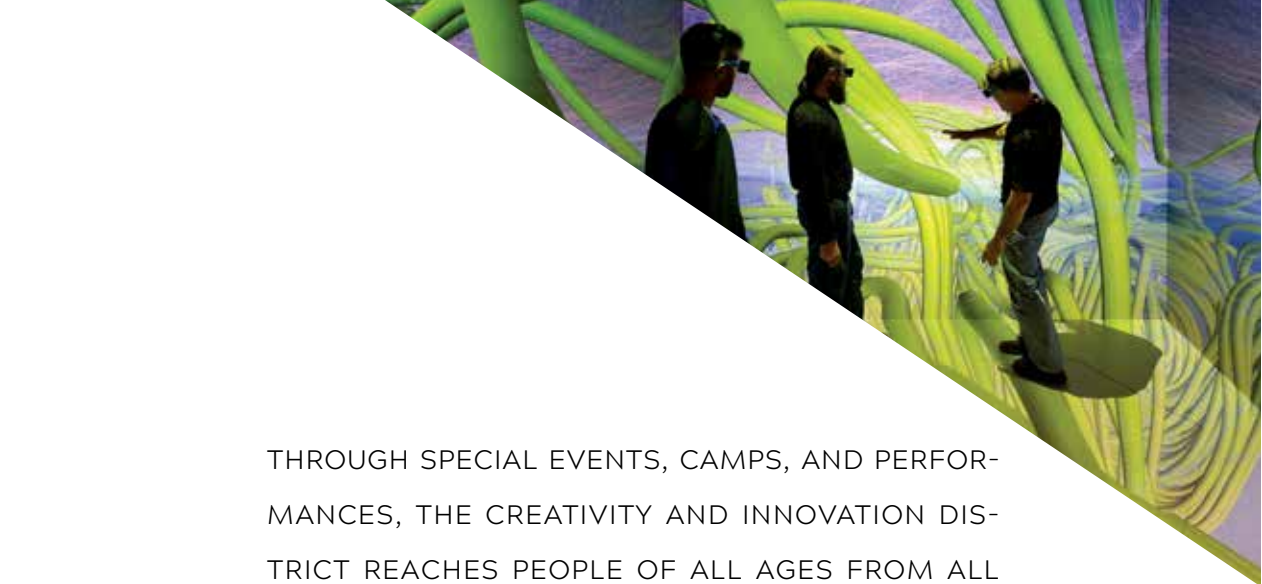
LEO PIILONEN, EW



RUTH WAALKES, ASSOCIATE PROVOST FOR THE ARTS AND EXECUTIVE DIRECTOR OF THE MOSS ARTS CENTER  
**"ANYTHING YOU CAN DO TO TAKE CLASSIC WORK LIKE SHAKESPEARE AND THRUST IT INTO THE FUTURE HERE IN THE CUBE IS REALLY DYNAMIC. THAT IS SOMETHING THAT'S GOING TO HAPPEN ONLY HERE AT VIRGINIA TECH."**

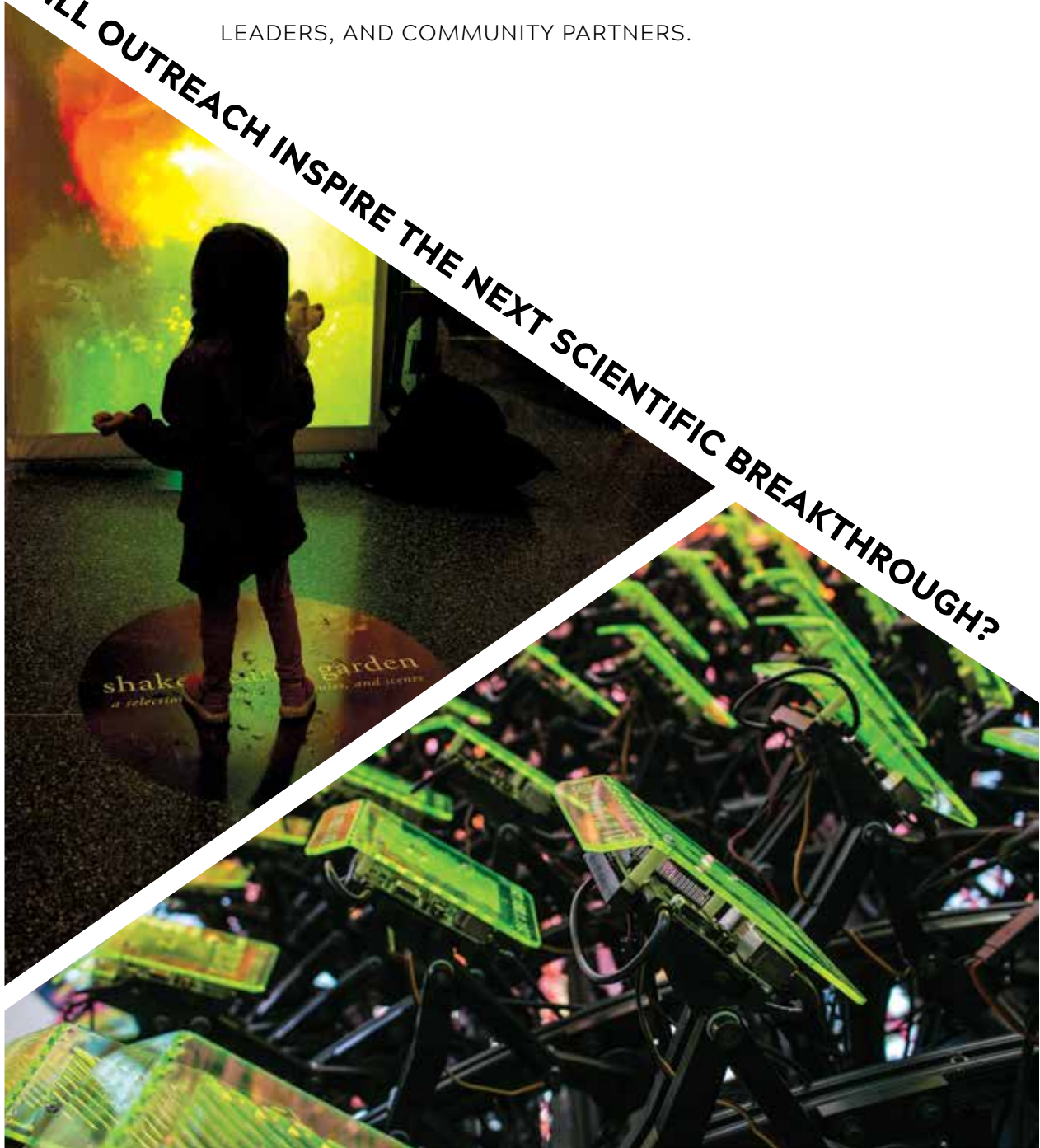


# EVENTS



THROUGH SPECIAL EVENTS, CAMPS, AND PERFORMANCES, THE CREATIVITY AND INNOVATION DISTRICT REACHES PEOPLE OF ALL AGES FROM ALL WALKS OF LIFE. THESE EXPERIENCES CONNECT EDUCATORS AND SCIENTISTS WITH STUDENTS, BUSINESS LEADERS, AND COMMUNITY PARTNERS.

WILL OUTREACH INSPIRE THE NEXT SCIENTIFIC BREAKTHROUGH?



## ACCELERATE: ACC SMITHSONIAN CREATIVITY AND INNOVATION FESTIVAL

ACCelerate, a partnership between Virginia Tech and the Smithsonian's National Museum of American History that was first launched in 2017, celebrates creative exploration and research at the nexus of science, engineering, arts, and design. At the 2019 festival, which featured research projects from universities across the Atlantic Coast Conference, nearly 62,000 visitors interacted with innovators and experienced new technologies.

## VIRGINIA TECH SCIENCE FESTIVAL

Since 2014, the Virginia Tech Science Festival has offered dozens of free hands-on, minds-on learning interactive booths and activities to showcase physics, space, engineering, communication, geology, health and medicine, history, transportation, computers, chemistry, and more. Nearly 5,000 visitors of all ages attend the festival each year. The university funds transportation to enable school children from underserved areas to attend the festival.

## ICAT CREATIVITY AND INNOVATION DAY

ICAT Creativity and Innovation Day demonstrates Virginia Tech's latest innovations combining science, engineering, arts, and design through dozens of experiences, performances, demonstrations, expo-style exhibits, and a panel discussion.

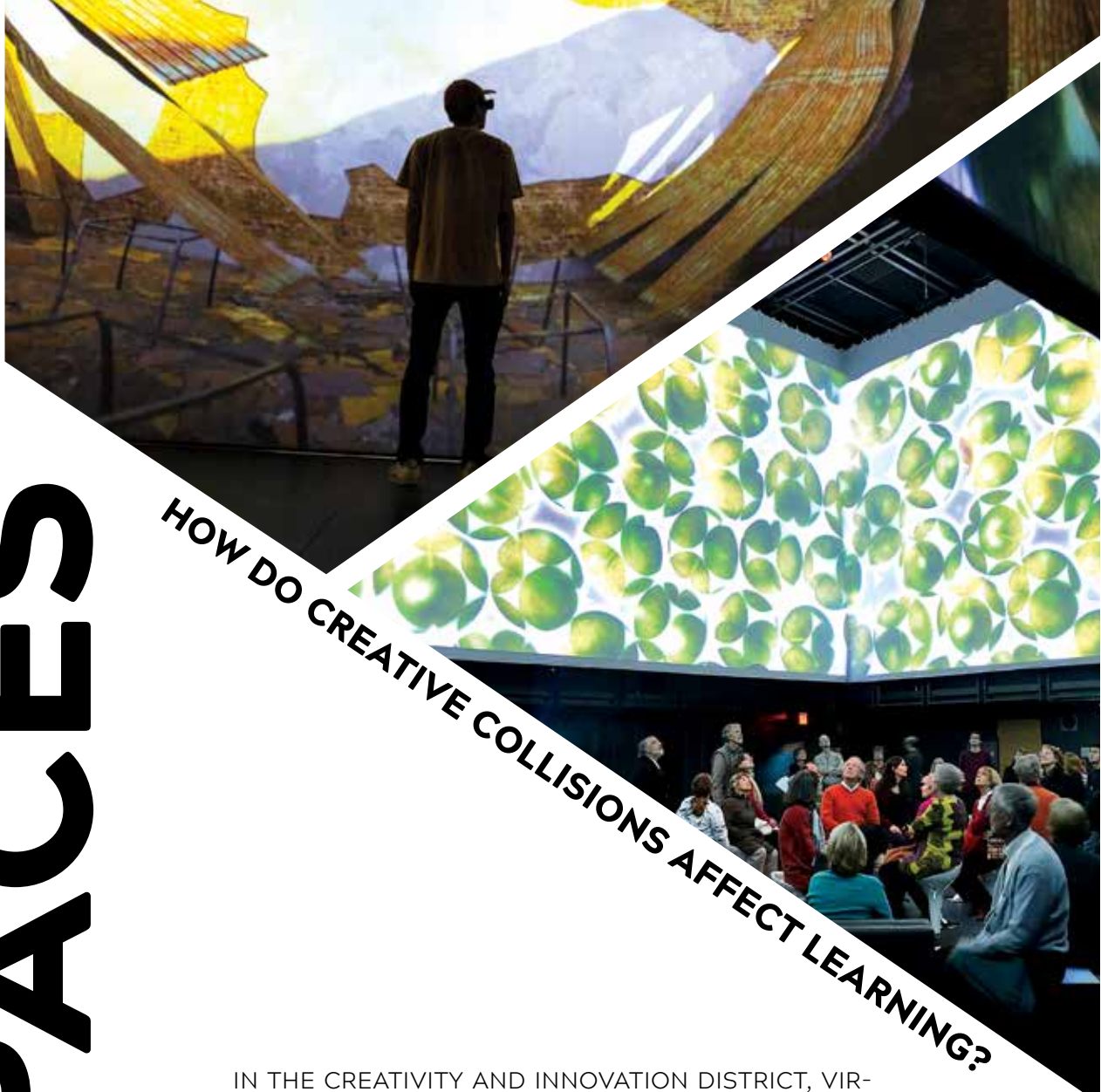
## CUBE FEST

Cube Fest features spatial music, immersive aural experiences, and 3D audio technology. The annual festival brings together international audio technology experts, computer engineers, music technology experts, musicians, and composers who present lectures, conduct workshops, and perform original compositions specifically created for high-density loudspeaker arrays.

BEN KNAPP, FOUNDING EXECUTIVE DIRECTOR OF THE INSTITUTE FOR CREATIVITY, ARTS, AND TECHNOLOGY  
"IT'S NOT A DISTRICT THAT SAYS, 'WE'RE GOING TO DO THIS PARTICULAR PROJECT.' INSTEAD, WE'RE SAYING: 'IF YOU'RE INTERESTED IN THE CREATIVE PROCESS, FROM IMAGINATION TO INNOVATION, THIS IS WHERE YOU COME TO WORK WITH A LIKE-MINDED COMMUNITY, NO MATTER WHAT YOUR DISCIPLINARY ORIGINS.'"



# CLASSES AND SPACES



HOW DO CREATIVE COLLISIONS AFFECT LEARNING?

IN THE CREATIVITY AND INNOVATION DISTRICT, VIRGINIA TECH IS PROMOTING STUDENT COURSEWORK AND DEVELOPING SPACES THAT BLEND ACADEMICS, SOCIAL INTERACTIONS, AND RESEARCH STUDIES TO SUPPORT THE SORT OF BOLD THINKING THAT WILL LEAD TO REAL SOLUTIONS FOR GLOBAL CHALLENGES.



EW, JIM STROUP, EW

## SERVICE/USER EXPERIENCE CLASS

A demonstration of Virginia Tech's Beyond Boundaries initiative, this class brings together students in industrial design, computer science, and business, and is co-taught by faculty from each discipline. Teams of students create projects to solve problems related to disability and aging. The class emphasizes Virginia Tech's motto, *Ut Prosim* (That I May Serve).

## USING HIGH-PERFORMANCE COMPUTING TO BOOST STUDENT CREATIVITY

A partnership between the Division of Information Technology, the School of Visual Arts, and ICAT, this advanced rendering class blends architecture, industrial design, and interior design. Students boost their technology skills, learning advanced techniques to create complex animations.

## DIGITAL STUDIOS

Students use the Digital Arts and Animation Studio, located in the library, to access high-end tools used in the production of digital film, web design, and animation. In the Digital Interactive Sound and Intermedia Studio, researchers and students merge contemporary technology with traditional performance to pursue new forms of artistic expression and multimedia art.

## THE SANDBOX

The Sandbox is an idea incubator. Teams meet to brainstorm, discuss visions, and roll up their sleeves to start projects. The flexible meeting space encourages collaborative creativity with moveable furniture, dry-erase boards, and a projection array.

## MEDIA BUILDING

The former school building is being transformed through a process in which architecture students and faculty members are embarking on their own "living lab adventure." The students and faculty are creating spaces to meet their own needs.

LOGAN WALLACE, AMANDA LOMAN



## THE CUBE

The Cube is a highly adaptable space for multidisciplinary, collaborative research and experimentation. Both a state-of-the-art theatre and a high-tech laboratory, the four-story Cube offers visualization, motion tracking, and immersive 3D audio. Users can experience total immersion in virtual realities. Researchers have developed immersive environments in the Cube that allow them to interact with anything in the world in real time, from the smallest subatomic particle to the largest building. The Cube is home to one of the largest multichannel audio systems in the world, with 150 independently operating loudspeakers. ■



# THE TRANSFORMATIONAL EFFECTS OF WORLD WAR I

BY MASON ADAMS

World War I marked a great juncture in history, ending the Gilded Age and making way for the modern era.

The conflict forever altered the nature of warfare, with industrialization producing changes of scale in weapons, tactics, and casualties.

The Great War left an enduring mark on Virginia Tech, too. The early university emphasized military education, so many students and graduates served on fields of battle. On the Blacksburg campus, three iconic landmarks memorialize their wartime sacrifices: The Rock, which stands on the Upper Quad; War Memorial Gym, which was dedicated to Hokies who served; and the Brotherhood Pylon, which bears the names of those who died in the line of duty.

World War I transformed Virginia Tech in more subtle but influential ways as well, prompting decisions that changed the school's direction and established a solid foundation for the future.

As Virginia Tech evolves, a simple prevailing ideal connects the global-facing university of today to its pre-war iteration as a military-focused institution—the spirit of *Ut Prosim* (That I May Serve).

VIRGINIA TECH CORPS  
OF CADETS MUSEUM, EW





Captain Lloyd W. Williams

## ALUMNI WHO FOUGHT IN WORLD WAR I

World War I veterans with a connection to Virginia Tech totaled 2,297 in uniform: 2,155 in the Army, 125 in the Navy, 19 in the Marine Corps, six in the Coast Guard, one in the British Army, and one in the French Foreign Legion. One alumnus was awarded the Medal of Honor, seven the Distinguished Service Cross, and one the Navy Cross. At least eight were awarded the Silver Star.

The Hokies influenced the conflict through their courageous actions and leadership. Probably the most well-known is Capt. Lloyd W. Williams, Class of 1907, who commanded the 51st Company in the 2nd Battalion, 5th Marines Regiment. In 1918, Williams' division was deployed to support the French army at the Battle of Belleau Wood. The unit arrived to find the allies retreating. A French colonel advised Williams to follow suit, but legend has it that the captain memorably responded, "Retreat, hell! We just got here!" (The first two words of that quote live on as the motto of the 2nd Battalion, 5th Marine Regiment and Alpha Company within the Corps of Cadets, of which Williams was an alumnus.)

**“RETREAT, HELL!  
WE JUST GOT HERE!”**

-Capt. Lloyd W. Williams, 1907

**“DON'T BOTHER WITH ME.  
TAKE CARE OF MY GOOD MEN.”**

-Capt. Lloyd W. Williams, 1907

Later, Williams led an assault at Belleau Wood. Although the mission routed the Germans, the lead Marine unit was devastated; only one of the 10 officers and 16 of the 250 enlisted men survived. Again, Williams ignored advice to retreat. During the skirmish, he was gassed and injured by shrapnel, but refused treatment. "Don't bother with me," Williams was heard telling medics. "Take care of my good men." Williams died when a shell exploded as he was being evacuated from the battlefield. He was posthumously promoted to major and received three Silver Star citations and a Purple Heart.

Many Virginia Tech alumni saw combat during the final two years of World War I. Twenty-six Hokies died in service, and another 26 were wounded.

"It is important to understand that more than one-half of American deaths in World War I were caused by disease, not by front line combat, and almost all of these deaths by disease came in the final three months of the war during the Spanish influenza epidemic," said Tom Ewing, a history professor and associate dean of the College of Liberal Arts and Human Sciences. "These proportions are slightly different for Virginia Polytechnic Institute (VPI) men. Approximately one-fifth of the names on the Pylon for World War I were men whose deaths were attributed to disease, including several men who died in Virginia before they ever left for service. Eleven of these men were killed in action or died from wounds on the front lines. The remaining deaths were due to accidents or from an unknown cause. At the time, all of these deaths were classified as war-related deaths. As we think about the meaning of military service, it is important to continue to think holistically about the costs of war."

Although the men experienced untold hardships and bore witness to war's grim realities, for some, resilience was manifested by retaining a positive perspective and even a sense of humor. In a survey after the war, Leonard Gaines, Class of 1917, who served as first lieutenant in the Army, noted his impressions of the fighting: "It was good fun until you were hit."

## THE ROCK

On July 2, 1919, Virginia Tech President Joseph Eggleston delivered his final commencement address. That same day, the Class of 1919 unveiled a stone memorial dedicated to "Our Dead Heroes Over There." Known as The Rock, the memorial includes the names of 11 alumni who were killed in action and stands in honor of all graduates who lost their lives during World War I. According to the corps guidebook, "while not dedicated so, [The Rock] is also a symbol to all former VTCC graduates who have died in conflict."

From that day forward, as cadets pass The Rock, they salute if in uniform or place their hands over their hearts if in civilian clothes.

That tradition was established by an editorial in the June 12, 1919, edition of The Virginia Tech student newspaper: "This thought, though simple, has a meaning which should always stand before our eyes, and it 'tis this: The memorial (not a monument) will be unveiled during Finals, and from that day hence let every student of V. P. I. salute or uncover to the memory of eleven brave warriors, and respect the small space it covers with the respect due the King of England, always being proud of V. P. I., her records, and her son."

"The Rock's creation introduced a distinction between combat deaths in France and deaths in other places from causes such as disease, training accidents, and deaths at sea," said Ewing.

"At least two names seem to be missing from the Rock," said Daniel Newcomb '13, M.S. '17, an alumnus and advisor who oversees "VPI in World War I," a research project connected to Virginia Tech's experiences in the war. "Lt. Harry Clay Williams and Priv. Maury Lake both died and are buried in France. It's possible they weren't listed because they hadn't graduated or because their deaths were yet unknown at the time of The Rock's dedication."

"If one includes those who died in training, the total number of Hokies who died from causes related to World War I is at least 26," Newcomb said. "However, a definitive number may never be known, due to the deaths of students who left Virginia Tech in the midst of their undergraduate studies to serve in the war."

► HONOR AND DUTY: A cadet salutes as he passes The Rock.

## THE 11 NAMES ON THE ROCK:

- CAPT. LLOYD W. WILLIAMS (CLASS OF 1907)
- LT. HOWARD THORNTON BARGER (CLASS OF 1916)
- LT. ROBERT LEWIS BUTLER (CLASS OF 1915)
- LT. J. FRANK CLEMMER (CLASS OF 1920)
- LT. JEROME M. CUDLIPP (CLASS OF 1912)
- LT. JAMES WAYNE FRANCE (CLASS OF 1915)
- LT. ALFRED RORER HARVEY (CLASS OF 1915)
- LT. ARTHUR BLACKIE MOORE (CLASS OF 1917)
- LT. SYLVESTER BAKER MOORE (CLASS OF 1916)
- LT. SETH WHALEY MURRY (CLASS OF 1916)
- PVT. J. CAMPBELL BERKELEY (CLASS OF 1912)



COURTESY THE LLOYD W. WILLIAMS COLLECTION (COLL/77) AT THE MARINE CORPS ARCHIVES AND SPECIAL COLLECTIONS

DM



Battery F, 60th Regiment Coast Artillery, Fortress Monroe, Virginia, March 1918.

## HOW WORLD WAR I CHANGED TECH

The war and the years that followed set in motion cascading effects that transformed the institution into a comprehensive modern land-grant university.

At the beginning of World War I, Virginia Tech students, all of whom were white males, were required to spend all four years of their education in the Corps of Cadets. When the U.S. entered the war in 1917, Tech and military institutions across the country became primary sources of officers.

“The American army at the start of war was only 100,000 soldiers,” said Newcomb. “By the end of the war, it was 4 million. If you went and signed up and had a college education, chances were you were going to become an officer.”

By the end of the war, Virginia Tech had become home to a sprawling unit of the Student Army Training Corps (SATC), a national project intended to create soldiers by simultaneously providing military training and a college education. Somewhere between 400 and 600 soldiers—about half of the total number of students at the time—were in an SATC camp at Virginia Tech when the war ended. None of them would see combat.

The years following World War I ushered in a time of transition for the university. Eggleston resigned from his post as Tech’s seventh president in 1919 to become president of Hampden-Sydney College.

Julian Ashby Burruss, Class of 1898, was named the university’s eighth president. Under Burruss, the corps requirement fell from four years to two. In a related move, Virginia Tech de-emphasized military education to advance the land grant-related fields of agriculture and engineering, which subsequently defined the university for much of the 20th century.

Nearly a century later, the shifts that World War I spurred mark a bright line in the university’s history, highlighting a juncture that made possible developments that would play out over decades: the university’s outreach to returning World War II veterans in the late 1940s, the acceptance of women and African Americans in the ’50s and ’60s, elimination of the corps requirement altogether, and development of the Principles of Community, which have opened the door for a student body that is more diverse in a multitude of ways.

## STUDENT RESEARCH ON LETTERS OF VIRGINIA TECH ALUMNI IN WORLD WAR I

Newcomb collaborated with Ewing to design a project to research the life stories of Virginia Tech alumni and students who served in the war. The resulting database incorporates information from official records and historical letters, along with personal accounts from the family members and descendants of those who fought.

“Studying the experiences of VPI men in the war raised important questions about why Americans go to war, how and why the U.S. government becomes involved in international conflicts, and how these experiences are remembered,” Ewing said. “Studying VPI in World War I has shaped my thinking about the ways that veterans today are regarded, how we remember wars that we have fought recently and are still fighting, and what kinds of questions must be asked about potential involvement in military conflicts.”

First-year history students in 2016 and 2017 aided the effort. By participating in the data collection, the students learned firsthand about techniques for documenting history. The 2017 class drilled down into the letters of Joseph Ware Sr., Class of 1903. Ware was a professor and commandant of the Corps of Cadets from 1911 to 1914, as well as the father of the flight test engineer for whom the Joseph F. Ware Jr. Advanced Engineering Laboratory is named. The students each transcribed a letter written by Ware that had been stored in an archive in Special Collections. They collaborated on tricky or challenging excerpts. The transcriptions are now available in Special Collections.

“We wanted students to recognize that they have a responsibility to preserve history as much as the [upperclassmen],” said Trudy Harrington Becker, senior instructor in the Department of History.



Joseph Ware Sr.

Students in the first-year experience class traced Ware’s journey to Europe through his letters to his future wife, learning about techniques for preserving history by performing them.

“They didn’t learn top down about World War I as a military endeavor,” Becker said. “What they learned was absolutely from the bottom: What’s going on with this individual and his colleagues and his friends and who he is serving with? We came from the bottom up.”

Liv Wisnewski, a rising junior majoring in history and theater, read two of Ware’s letters in which “he talked to his wife about their kids, their finances, how he hoped to come home soon, and what he did and didn’t like about being overseas.”

Wisnewski continued her study of Ware with an independent project. She examined Ware’s life after the war, including the disintegration of his first marriage, his extended time in Europe, and his eventual return to the U.S.

“To read the letters of someone who lived such a different life from me—what brought him joy, what brought him pain, what made him feel worthless, which he wrote several times—was interesting,” Wisnewski said. “It reinforced what I already enjoyed about history: The idea that people have always been people and have always had concerns and small happinesses, and other things they experience differently than anyone else.”

The class and project developed Wisnewski’s skills as a historian and deepened her appreciation for Virginia Tech.

“Now when I walk past [The Rock], I have a sense of respect and a new sense of pride for it,” Wisnewski said. The inscriptions now represent more than just a list of names. “These people existed and went to school here and weren’t just figures in history who went off to war.”

◀ SINCERELY YOURS: Liv Wisnewski, a rising junior, studied the wartime letters of Joseph Ware Sr., Class of 1903. ▶ TECH TIME TRAVEL: Using virtual reality technology, students can travel through time to experience the World War I tunnels at Vauquois, a French village.

## RESEARCHERS RECREATE A FRENCH BATTLEGROUND

In early spring, the fourth floor of Newman Library hosted one of the bloodiest battlegrounds of World War I: the French village of Vauquois. Pocked with underground tunnels, Vauquois was pummeled by artillery fire from 1914 to 1918.

Funded by a grant from the Institute for Creativity, Arts, and Technology, Virginia Tech researchers visited Vauquois in 2016. Using laser scanning and photogrammetry, the team re-created the underground passages in a virtual reality environment, then constructed a mock shaft complete with era artifacts.

“All of this is rolled together to create an immersive environment that allows people to learn what it was like to be there at Vauquois before and during the war,” said Todd Ogle, University Libraries executive director of applied research in immersive environments and simulations, who worked with colleagues from the VT Visualizing History Team to develop the virtual experience.

“It’s really an activity that typifies the sort of research and development that can happen in [Virginia Tech’s] Creativity and Innovation District and brings together faculty and students from a number of disciplines,” Ogle said. “You had people from computer science, education, libraries, visual arts, and performing arts all working together to create this virtual experience.” ■





MOLLY HUNT TILTS A DRIP TORCH. INSIDE THE CANISTER, A LIQUID MIXTURE OF GASOLINE AND DIESEL FUEL SHIFTS FORWARD AND SIPHONS DOWN, MAKING A FULL CIRCLE AROUND THE FUEL TRAP LOOP BEFORE REACHING THE LIT WICK. HUNT, A FORESTRY MAJOR IN THE COLLEGE OF NATURAL RESOURCES AND ENVIRONMENT, BEGINS TO POUR FIRE.

ON THE OTHER SIDE OF THE RIDGE, FORESTRY MAJOR EMILY NEWCOMBE LIGHTS A PARALLEL LINE. THE RADIO ON NEWCOMBE'S SHOULDER CHIRPS AS VOICES DIRECT HER MOVEMENTS. AT THE PERIMETER OF THE BURN, STUDENTS AND MEMBERS OF THE VIRGINIA DEPARTMENT OF FORESTRY STAND GUARD, READY TO PREVENT ANY WAYWARD SPARKS FROM CROSSING THE FIRE LINE.

THE FIRE STARTS SMALL. AS THE FLAMES GROW, THEY BURN BRANCHES AND SINGE THE LOWER BARK OF TREES. EVENTUALLY, FLAMES CLIMB 10, THEN 20 FEET HIGH.

THIS IS A WORK DAY FOR STUDENTS IN VIRGINIA TECH'S WILDLAND FIRE: ECOLOGY AND MANAGEMENT COURSE. TODAY'S ASSIGNMENT: A PRESCRIBED BURN.

ADAM COATES

# BURNINGISSUES

BY DAVID FLEMING



**FIRED UP:** Senior forestry major Emily Newcombe uses a drip torch to ignite brush along the established fire line.

## A HISTORY OF FIRE

Fire has always played a role in the forest ecology of southwestern Virginia.

“If you look back on the history of our forests, fire has been a natural part of a forest’s life,” said Adam Coates, assistant professor of forest fire ecology and management in the Department of Forest Resources and Environmental Conservation. “Wildfires may have ignited when a lightning strike occurred during drier conditions. The fire would move and meander until precipitation extinguished it, a stream or water body created a boundary to contain it, or it ran into fuels that would not ignite. We also know that Native Americans used fire to clear land for agriculture or to maintain wildlife habitat.

“Many older trees have been harvested to expose their annual growth rings,” he continued. “Often, you can see in the rings when fire events happened, and you can tell that some of the fire events were occurring when the trees were dormant during cold months,

when forest fires from lightning strikes would be unlikely to occur. So we’re in an area that was once dominated by repeated and frequent fires, both naturally occurring and man-made.”

The rise of development, and particularly the movement toward urban living over the past century, has led to efforts designed to prevent naturally occurring fires in order to protect people and property.

“As a result, we have forests in Virginia that have large accumulations of fuel in places where a long time ago fire would have burned off that excess,” Coates said. “Controlled burns allow us to return the forests to a balance that once occurred naturally, while making sure that wildfire can’t reach where people live.”

The forests of Appalachia, less studied than drier landscapes where wildfire is a more prevalent occurrence, present compelling new areas of research related to fire use and prevention.

“We’ve gone so long without fire being prevalent on the landscape that it’s really hard to put fire back and expect it to do

HELEN THOMPSON

what we think it did a long time ago,” Coates said. “To some degree, we have novel forests now. We took fire away, and in doing that we’ve changed the dynamics of our forests. So trying to put it back is a complicated and challenging process. But it’s also pretty interesting.”

For Molly Hunt, working in forestry has always been an ambition.

“I grew up in the woods,” said Hunt, a May 2019 graduate. “I have a huge passion for conserving the land and protecting the woods, and I came to Virginia Tech to learn how to do that.”

The wildland fire course inspired Hunt to join the New River Valley Wildland Fire Crew. Monthly training activities sponsored by the group helped her work toward an Incident Qualification Card, a requirement for fire crews working on federal lands.

## PREPARING TO LIGHT

Prescribed fires are not appropriate for every portion of our current landscapes. Some areas have gone extended periods without fire, and other management activities might be needed before prescribed fire can be considered as an option. Careful consideration and planning are necessary for prescribed fire, long before anyone can ignite fuel on the landscape.

On the day of the burn, the first stage of prescribed fire implementation on the ground typically involves shovels and rakes, but—if one is lucky and terrain permits it—preparations might include a bulldozer.

“Once we determine the general area we want to burn, we construct a boundary around it,” Coates said. “The key is to remove any potential fuel from the line so the fire can’t cross.”

For the 11-acre burn conducted on Virginia Tech’s Fishburn Forest to enhance wildlife habitat, the crew used heavy machinery to dig a portion of the fire break, a perimeter around the burn area where the ground is cleared to bare soil. Students completed the circle using metal rakes and leaf blowers. Personal protective equipment includes fire-resistant clothing, work gloves, fire-resistant boots with 8-inch tops and Vibram-soles, and hard hats.

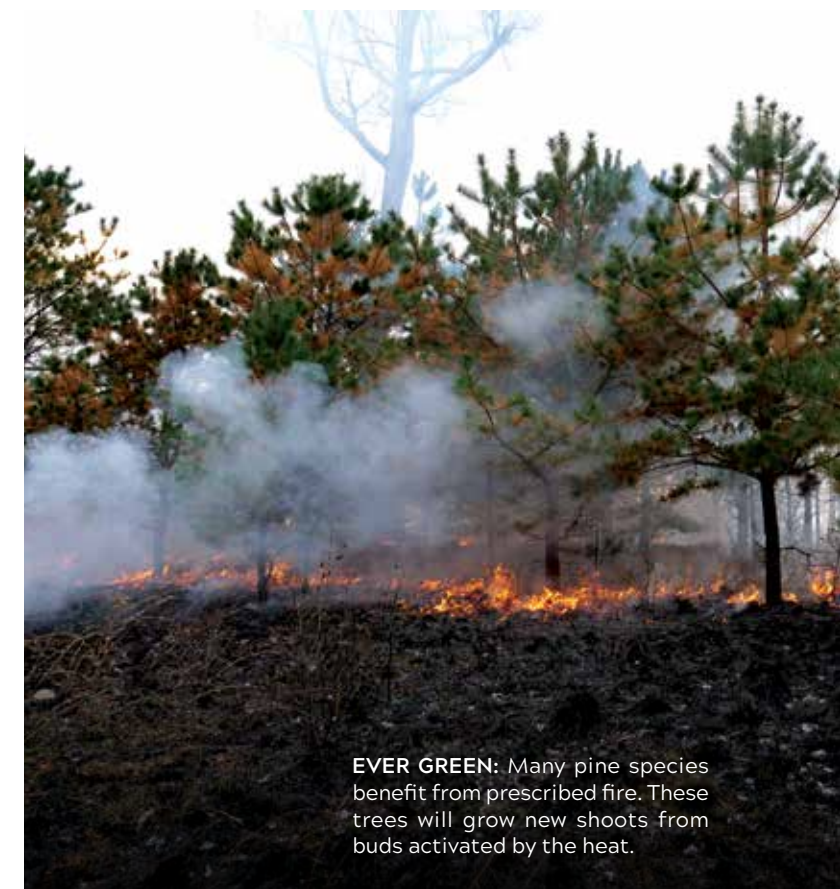
The fire burns with surprising speed, the dormant fuel of the forest quickly exhausted. When it is out, the students march onto the blackened landscape, using steel rakes to check the ash layer for dormant hotspots and taking measurements of the depth of the burn in the layers of soil.

CHRIS DUKES

“

I GREW UP IN THE WOODS. I HAVE A HUGE PASSION FOR CONSERVING THE LAND AND PROTECTING THE WOODS, AND I CAME TO VIRGINIA TECH TO LEARN HOW TO DO THAT.”

Molly Hunt '19



**EVER GREEN:** Many pine species benefit from prescribed fire. These trees will grow new shoots from buds activated by the heat.

The students also study the movement of the smoke and monitor the perimeter to confirm no sparks have crossed the divide into the wider forest. They check tree stumps and pour cold ash and dirt over the heat to fully exhaust the fire.

In one corner, a stand of pitch pines has survived. The trees will grow new shoots from epicormic buds activated by the heat. New branches will grow at angles, developing layers of bark that protect inner layers from future fires. In spring, the trees will drop their cones onto the ash and rich soil, and seeds will emerge from these cones.



**BURN NOTICE:** A pre-burn briefing, where tasks are assigned to crew members and safety measures are reviewed, is a critical part of any prescribed burn.

“

YOU CAN SEE THEIR FACES LIGHT UP WITH EXCITEMENT ABOUT THE WORK WE'RE DOING, **AND THAT'S WHEN YOU KNOW YOU'VE GOT 'EM. THAT'S WHEN YOU KNOW THEY'RE HOOKED.**”

Adam Coates,  
assistant professor of forest fire ecology  
and management

## 'THAT'S WHEN YOU KNOW YOU GOT 'EM'

Conducting a burn with the Virginia Department of Forestry gives students one-on-one time with professionals, transfers classroom learning to the field, and creates an experience that helps bring a new generation of foresters to the field.

“We ask the students to tell us what they're seeing as the burn is happening,” Coates explained. “Afterwards, they'll start to make inferences from the experience. And because each fire is such a unique event, we're asking them to be the scientists of the event, to be the ones asking the questions and working out the answers.”

“It's perfect on-the-job training,” he continued. “The work of conducting a burn briefing, laying out the objectives, and doing the preparation is what the students are going to wind up leading when they're on a job. You can see their faces light up with excitement about the work we're doing, and that's when you know you've got 'em. That's when you know they're hooked.”

DM

## FROM THE CLASSROOM TO THE FOREST

Across the U.S., few universities employ professors dedicated to teaching and researching fire ecology. Coates' position reflects Virginia Tech's commitment to studying the role that fire plays as a tool for foresters and as a naturally occurring event that demands preparedness. The availability of a fire expert on campus also broadens research opportunities.

“We have some really terrific, highly specialized faculty here,” Coates said, “and having a designated ‘fire guy’ like me, someone who can put fire on the ground and study the energy being produced by it, really creates unique opportunities for collaboration. We can better understand how fire might affect soil or water, for example. This helps us fit both prescribed fires and unplanned wildfires into the broader context of forest management.”

According to Coates, climate change has increased the urgency for studying forest fires. He cites the spate of wildfires in North Carolina, Georgia, and eastern Tennessee in late 2016 as a precursor to what Appalachia could face in coming years.

“Only three ingredients are needed to create flames: heat, oxygen, and fuel. If you consider weather patterns and how they affect fire, you have to think about periods of wetting and drying and how they affect vegetation. In the context of fire, living and dead vegetation become fuel. When we receive abundant rainfall, vegetation responds with new growth. If we have extended periods of dry weather after that abundant new growth has occurred, that vegetation becomes dry and easier to ignite,” Coates said.

“Under these conditions, all it takes is one major wind or storm event, or someone being careless or malicious with fire, and the results are these seemingly anomalous wildfires. We're seeing rising temperatures and changes in the dynamics of moisture, and we've got to get a grasp on how these events occur so we can make efforts to prevent them, or at least minimize potential damage for people and their property.”

Education is also essential. Coates intends to work with communities across the region through the Firewise USA program, aimed at educating residents in suburban and developing areas on how to build houses and maintain properties in ways that reduce fire risk.

Coates also hopes to develop a designated center for fire research.

“I have an infrared camera and numerous devices that measure heat, and we're able to use all of these tools to conduct research

CHRIS DUKES

in the field,” Coates explained, “but we don't have a centralized burning chamber or table experiment space to take smaller amounts of material and run research. It'd be great to be able to manipulate variables in a controlled setting, to create certain types of fires with specific vegetation under specific environments and measure how they burn. We've talked about developing a facility where we could do that type of research with a high level of accuracy. That's the next step.” ■

*David Fleming is a staff writer for the College of Natural Resources and Environment.*

## THE WILDFIRE CHASER



SENIOR EMILY NEWCOMBE SPENT THE SUMMER OF 2018 ON A WILDLAND FIRE CREW BASED IN IDAHO. THE TEAM FOUGHT FIRES ACROSS THE WESTERN U.S.

“THE BIGGEST FIRE WE SAW WAS AROUND 450,000 ACRES,” NEWCOMBE SAID. “IT WAS MOSTLY GRASS AND SAGEBRUSH THAT RAN REALLY QUICKLY. WE'D GET TO ONE LOCATION AND FIND THAT THE FIRE HAD RUN OFF, AND THE HEART WAS 30 MILES AWAY FROM WHERE WE EXPECTED IT TO BE.”

NEWCOMBE, WHO HAS COMMITTED TO WORKING THIS SUMMER ON ANOTHER WILDLAND FIRE CREW IN DARBY, MONTANA, SAID THAT WORKING AS A WOMAN IN THE FIELD HAS BEEN A POSITIVE EXPERIENCE.





Morgan Blackwood Patel '03

# AROUND THE HOKIE NATION

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## THE BUILDING WHISPERER

ON EACH AFTERNOON'S COMMUTE, MORGAN BLACKWOOD PATEL CRITIQUED THE PROGRESS ON A BARBECUE RESTAURANT UNDER CONSTRUCTION ALONG THE MIDLOTHIAN TURNPIKE IN THE RICHMOND AREA.

Mind you, she was riding home from daycare, because she was a toddler.

Her early curiosity has served her well. Blackwood Patel, a 2003 industrial and systems engineering (ISE) graduate, is now regarded as one of the most prominent women in commercial real estate in the mid-Atlantic, according to Spencer Stouffer, vice chairman at the Cushman & Wakefield brokerage firm.

From 2015 to 2018, as a vice president for The Meridian Group, a private equity firm and one of the region's premier developers, Blackwood Patel helped to shape The Boro District, a mixed-use development in Tysons Corner, Virginia, that blends residential, office, retail, dining, and entertainment spaces across about a dozen new and repositioned properties and 25 acres.

Real estate is a traditionally siloed industry—a property is routed from the acquisitions team to the designers and architects to the developers to the brokers to the landlords and property managers—but Blackwood Patel thinks less about a single asset and more about managing the brand of an entire development. That thinking is evident across The Boro District, where she focused on offering a unified experience for tenants, making eight repositioned office buildings feel right at home amid the new assets.



INCREASING RETURNS: Following the example set by her parents, Blackwood Patel is committed to serving Virginia Tech students.

“THERE'S NEVER A TIME WHEN YOU CAN'T HELP SOMEONE. IT IS LOOKING INTERNALLY AND ASKING, 'HOW CAN I MAKE A DIFFERENCE?'"

Morgan Blackwood Patel '03

“It's as well-branded and connected a development as I've ever seen in Northern Virginia,” said Stouffer, who placed tenants for Meridian. “Morgan's vision to give it a sense of place was remarkable. The result is the most prominent and successful mixed-use development in Northern Virginia in a decade. It has changed the market.”

Gary Block, chief investment officer and partner at Meridian, said the firm's investment philosophy is to provide an unparalleled experience to tenants. “Morgan helped us synthesize and execute on that thesis,” said Block, adding that she was the first to express the idea that tenants would actually seek out a Meridian building just like a traveler might look for a Ritz-Carlton hotel.

Blackwood Patel likes to absorb the vibe of a building and imagine its next life. “I feel like the building whisperer,” she said with a laugh. Planning a development, she ponders the human factors, such as whether a parking garage seems sunny or dreary or how people will interact with a green wall full of plants. In a tight labor market, where employees want to brag about their office digs on Instagram, innovation matters to employers. As Blackwood Patel tells investors, “I'm an engineer, but I talk about feelings all day.”

### EMBRACING

In the evening hours, Willis P. Blackwood '72 would often spread out blueprints on the sunroom floor at home, red pen in hand, to evaluate the progress of his development company's shopping-center projects. And his daughter Morgan, after some explanation, began to understand the drawings. “She got into the business, tangentially, pretty early,” Blackwood said. “She had an affinity for it at an early age.”

Drawn to drafting classes and architecture in high school, Blackwood Patel found industrial and systems engineering to be a perfect fit. In her first year at Virginia Tech, she earned top marks in a course in which students disassembled and assembled such objects as lawnmowers and disposable cameras. And there was no question she would become a Hokie. Her father and mother, Mary Nolen Blackwood '73, met on a blind date on Halloween as undergraduates, and nearly 30 in her extended family are alumni.

In the real estate and private equity fields, Blackwood Patel often finds that she's the only woman in a meeting. She counters with confidence and authenticity, embracing rather than suppressing her differences.

With her stature in the industry, Blackwood Patel “has really done a wonderful job mentoring and embracing younger women in our industry, and she has been a champion for all of her peers,” Stouffer said. “She treats everyone equally, whether they're in their first year or they've been doing it 30 years.”

### SERVING

In 2018, Blackwood Patel finished a five-year term on the advisory board for the Grado Department of Industrial and Sys-

tems Engineering, including one year as chair. When she joined the board, “I didn't know what a force she was,” said Don Taylor, former ISE department head and now Virginia Tech's vice provost for learning systems innovation and effectiveness and Charles O. Gordon Professor of Industrial and Systems Engineering. “She quickly proved that we made a great decision.”

At her first board meeting, Blackwood Patel displayed a willingness to take charge and give of her time. “Within about 10 minutes, you can figure out that Morgan is a leader,” Taylor said. “She has a very strong servant-leader orientation.”

As advisory board chair, Blackwood Patel championed the growth of ISE's Excellence Fund, an endowed fund that generates earnings to support student activities, such as sending a student to a conference, bringing a speaker to campus, or helping students conduct research. Gifts to the fund come in all sizes. “As Morgan described it once, we call it ‘the-nickels-and-dimes-that-add-up fund,’” said Eileen Van Aken, ISE department head and professor.

“When everybody gives \$25, it really adds up,” Blackwood Patel said. “You have a direct impact on people. It's not some nebulous thing.”

### HOSTING

Blackwood Patel, who served for years on the Women in Leadership and Philanthropy Council and the Alumni Association Board of Directors, is now one of three chairs for Virginia Tech's upcoming capital campaign, alongside Lynne Doughtie '85 and Horacio Valeiras '80. Her decision to step into the role makes sense in the context of her favorite undergraduate memory: standing up on many Fridays in Professor Brian Kleiner's senior

design class and inviting 100 classmates to her house for a barbecue.

The campaign will emphasize not only philanthropy but also engagement. Philanthropy drives Virginia Tech's excellence, because state funds and tuition can't finance the full costs of empowering students and faculty to solve world-scale problems. And engagement means building and strengthening Hokie bonds—reconnecting with classmates, alumni mentoring students, and much, much more.

“There's never a time when you can't help someone,” said Blackwood Patel. “It is looking internally and asking, ‘How can I make a difference?’ My company could host an intern. I can take phone calls from students. I can welcome a new graduate into the area and broaden his network by introducing him to people.”

Van Aken marveled at Blackwood Patel's willingness to connect with students. “She's serious about it. She makes the time. Hokies aren't afraid to roll up their sleeves and not just sit on the sidelines—and Morgan is out on the field.”

Blackwood Patel and her husband, Manish Patel, are now even more motivated to help. They recently welcomed their first child, son Jules, via a gestational carrier. Overwhelmed that another person would give them such a gift, the Patels felt a renewed sense of the goodness of humanity.

### BUILDING

In mid-2018, Blackwood Patel began transitioning away from Meridian. She launched a consulting business called Greystreak—at the same age, incidentally, as her father when he launched his business—to help clients develop and execute on new visions for old assets. She

is also collaborating with another Hokie to develop document-management software for real estate assets.

“I knew what I wanted to do when I was 4 years old,” Blackwood Patel said. “I took a sort of winding path to get here.”

At the time of an interview at her home in March, Blackwood Patel was easing back into a work routine, meeting with colleagues and friends at restaurants and coffee shops—and, naturally, she took along 3-month-old Jules, who was probably taking mental notes. ■ JT

### RÉSUMÉ HIGHLIGHTS

**2003**  
Bachelor's in industrial and systems engineering, minors in business and French

**2003-07**  
Supply chain and strategy consulting, Accenture, New York City

**2007-09**  
MBA program at Harvard

**2009-11**  
Director of marketing for a business focused on energy use in buildings, Redlands, California

**2011-14**  
Development executive, Clark Energy Group, working on large energy-efficiency projects, Arlington, Virginia

**2015-18**  
Vice president, Meridian real estate private equity, Bethesda, Maryland

**2018**  
Launched Greystreak, a real estate consulting business, McLean, Virginia

ADDENDUM  
Read the full story about Blackwood Patel at vtmag.vt.edu.



# ALUMNI AT NETFLIX

HOKIES IN LA NETWORKING EVENT

The alumni relations office hosted a Hokies in LA networking event March 19 at the Netflix headquarters. The event, which drew about 140 Hokies to the streaming giant's headquarters, fell on the university's second annual Giving Day and served as a West Coast hub.

During the event, Michelle Kruseic '95, Adam Abrahamson, '06, David Silberstein '10, and Tom Bagamane '83 participated in a panel discussion moderated by Senior Associate Vice President for Alumni Relations Matt Winston '90. (Participants are pictured in image at bottom right.)

Kruseic is an accomplished actress best known for her roles on "Hawaii Five-O," "Community," "ER," "Star Trek Deep Space Nine," "General Hospital," and more. Abrahamson is currently the director of digital content for the "The Late Late Show with James Corden." Silberstein is the co-founder of Megahouse music and is an accomplished music producer and manager for some of the biggest hits like "Moves Like Jagger" by Maroon 5. Bagamane founded The Giving Spirit, a nonprofit that provides the homeless with survival assistance. ■



PHOTOS BY TROY HARVEY



# CLASS NOTES

Alumni, we want to hear what you've been doing. Mail career, wedding, birth, and death news to Class Notes, Virginia Tech Alumni Association, Holtzman Alumni Center, 901 Prices Fork Road, Blacksburg, VA 24061; email the information to [classnotes@vt.edu](mailto:classnotes@vt.edu); or submit the news online at [vtmag.vt.edu/submit-classnote.php](http://vtmag.vt.edu/submit-classnote.php), where photos may also be uploaded for consideration. For assistance, call 540-231-6285.

'55

**CAREER George E. Keller II**, Charleston, W.Va., received the 2017 Distinguished West Virginian Award.

'64

**CAREER R. Bradley Chewning**, Harrisonburg, Va., was named to the Department of Civil and Environmental Engineering Academy of Distinguished Alumni at Virginia Tech.

**Homer Hickam**, Huntsville, Ala., was featured in an interview series by Sara Connell, a best-selling author and writing coach.

'68

**CAREER Martin Peter Azola**, Baltimore, Md., published a book, "The Azola Legacy-50 Years Rebuilding Baltimore."

'70

**CAREER Raleigh "Leigh" Milton Felton III**, South Boston, Va., assumed pastoral leadership for Boynton United Methodist Church.

**Edward R. Pittman**, Lancaster, Va., was elected senior vice president of VCB Financial Group.

'73

**CAREER Jere R. Mitchell**, Columbia, Mo., retired as technical director of the National Association of Animal Breeders.

**Nancy Pachuta Anderson**, Greensburg, Pa., was named interim CEO for Westmoreland Cultural Trust.

'74

**CAREER Elizabeth "Ann" Dunnington**, Blacksburg, Va., was honored with emerita status by the Virginia Tech Board of Visitors.

**Edward Phillip Hickman Jr.**, Horntown, Va., is serving a one-year term as chairman of Potatoes USA, the marketing and promotions board of the U.S. potato industry. He is the first chairman from Virginia.

**Steve Allen Orndorff**, Broomfield, Colo., is CEO of Canalis Pharmaceuticals, a subsidiary of Teewinot Life Sciences.

**George Todd Wright**, Hilton Head Island, S.C., received the Order of the Palmetto from South Carolina Gov. Henry McMaster.

'75

**CAREER John Robert Lawson II**, Newport News, Va., was named Virginia Business Person of the Year.

**Jane Craig Sebok**, Congers, N.Y., published "Time Changes Everything," a book for young adults.

**Joel Stone Sr.**, Glen Allen, Va., received the inaugural 2019 Thomas Champion for Industry Award.

'76

**CAREER Marni E. Byrum**, Alexandria, Va., is president of the Virginia State Bar.

**John Thomas Patton**, Bloomington, Ind., was elected as a fellow of the American Association for the Advancement of Science.

Virginia Teske Smith '39



Henry B. Smith III '69

## A TIMELESS TRADITION

A lot can change in 80 years, but many would say Virginia Teske Smith's favorite aspect of Virginia Tech has stood the test of time.

"Every person on campus spoke to a stranger, every stranger. They just said hello or something," said Smith, a member of the Class of 1939. "When you'd come back several years later and walk the campus and everyone greeted you, it was just such an overwhelming experience."

Having just celebrated her 100th birthday, Virginia Smith returned to Blacksburg to celebrate her 80th reunion in May. Accompanied by her son, Henry B. Smith III '69, she was acknowledged as a Virginia Tech Centenarian and awarded a piece of Hokie Stone by the Old Guard Society of Golden Alumni during their annual celebration.

STEVEN MACKAY

**Robert Alan Rapaport**, Virginia Beach, Va., was inducted as a Class of 2019 Fellow in the College of Workers' Compensation Lawyers.

**Ellen Vance**, Henrico, Va., retired as chief human resources officer of Sheltering Arms Hospital on 2/4/19.

**'77**

**CAREER Tim H. Mullins**, Richmond, Va., was named the 2019 Best in State Wealth Advisor by Forbes.

**Gregory C. Thompson**, Fort Lauderdale, Fla., is executive vice president and chief financial officer of KEMET Corp.

**WEDDING John Milton Hinerman Jr. and Marjorie Elizabeth Jones '79**, Washington, D.C., 02/27/19.

**'78**

**CAREER Richard Lee Anderson**, Woodbridge, Va., announced his candidacy for Virginia House District 51.

**David Warner Miller**, Louisville, Ky., authored "Employed Physician Networks: A Guide to Building Strategic Advantage, Value and Financial Sustainability," which was published by the Health Administration Press.

**Katherine Ellen Quesenberry**, Ridgefield, Conn., is chief medical officer at New York City's Animal Medical Center.

**'79**

**CAREER Carl Billian**, Marietta, Ga., operates a multidisciplinary head injury clinic in Atlanta, Georgia.

**David Christopher Dunbeck**, Philadelphia, Pa., is executive director of the Center for Nonviolence and Social Justice at Drexel University.

**'80**

**CAREER Thomas Benton Kelso II**, Southport, N.C., published "Fractured."

**Claudia Kitchen Cotton**, Suffolk, Va., is CEO of Tidewater Builders Association.

**Raymond Jeffrey Kmetz**, Livermore, Calif., is chief business officer with Ascentage Pharma.

**Kurt James Krause**, Norfolk, Va., is president and CEO of VisitNorfolk.

**'81**

**CAREER William Ronald Aimutis Jr.**, Denver, N.C., is director of the N.C. Food Processing Innovation Center.

**Jennifer Moore Rock**, Fuquay Varina, N.C., is chief accounting officer with Zillow Group.

**Paul Alan Grachow**, Port Saint Lucie, Fla., retired from the Woodrow Wilson International Center for Scholars where he was the audiovisual and media services specialist.

**Martin Styer Frankhouser**, Bethlehem, Pa., is the national director of American Humane's farm program.

**Russell David Housley**, Herndon, Va., was named to the Diamond Key Security Advisory Council.

**Brian R. Murphy**, New Castle, Va., was honored with emeritus status by Virginia Tech.

**Joseph Clinton Rivers**, Suwanee, Ga., is the vice chairman of the National Chicken Council for 2018-19.

**Robert Christopher Rosenthal**, Edgewater, Md., joined Vallit Advisors as a partner.

**Janis Pinchefskey Terpenney**, Centre Hall, Pa., was named to the Wayne T. Davis Endowed Dean's Chair and appointed dean of the Tickle College of Engineering at the University of Tennessee.

**'82**

**CAREER Kathleen Blomstedt Timko**, Far Hills, N.J., was named to Rutgers University's Customer Experience Certificate Program Advisory Board.

**William David Francis**, Jacksonville, Fla., is chief compliance and human resources officer for Dewberry.

**Paul Barnes Mustian**, Richmond, Va., is firm administrator with Christian & Barton.

**'83**

**CAREER Michael Wayne Clarke**, Vienna, Va., joined the Union Bankshares Corp. board of directors and was named a Wells Fargo Distinguished Speaker.

**Donya Cecilia Lester**, Linden, Ind., received an Alumni Award of Excellence from the University of Georgia's College of Agricultural and Environmental Sciences Alumni Association.

**Anthony Vernon Marshall**, McDonough, Ga., was reappointed to the Georgia Council on Aging.



# SAVE THE DATES

Sept. 4

Hokies in 757

Sept. 7

Pamplin College of Business Tailgate  
Multicultural Alumni Tailgate

Sept. 12

Women in Business

Sept. 14

Corps of Cadets Reunion  
Vet Med Tailgate

Sept. 27

Chapter Officers Forum  
College of Architecture  
and Urban Studies Tailgate  
Family Relations Tailgate  
College of Science Tailgate

Sept. 28

HokieTalks

Oct. 2

Hokies in Federal Government

Oct. 10-11

Virginia Tech Alumni Association  
Board Meeting

For more information, including a complete listing of events, visit [alumni.vt.edu/events](http://alumni.vt.edu/events).

**Brian Allen Talbert**, West Lafayette, Ind., was inducted into Purdue University's Book of Great Teachers.

**Douglas Keyes Wiltsie**, Fairfax Station, Va., is vice president of operations for the Defense Systems Customer Group for Science Applications International Corp.

**Suzanne Hall Wood**, Mooresville, N.C., is senior vice president and chief financial officer with Vulcan Materials Co.

**'84**

**CAREER James Friend Dickerson**, Zion Crossroads, Va., was selected as the 2018 Realtor of the Year by the Charlottesville Area Association of Realtors.

**Thomas Edward Hughes**, Cambridge, Mass., was named CEO at Navitor Pharmaceuticals.

**Geoffrey Randall Jesberg**, Dallas, Texas, is president of FlexRay.

**Jesse Richardson Jr.**, Morgantown, W. Va., received the Excellence in Agricultural Law for Academia Award from the American Agricultural Law Association.

**'85**

**CAREER Betsy Gano Brumback**, Winchester, Va., retired from MidAtlantic Farm Credit after 28 years.

**Jon Charles Emanuelson**, Leland, N.C., began pastoral leadership at Holy Trinity Greek Orthodox Church in Lewiston, Massachusetts.

**Brent James Fields**, Ashburn, Va., was named associate director in the Division of Investment Management at the Securities and Exchange Commission.

**Michael Donald Freund**, Northbrook, Ill., was appointed managing director with Rittal North America LLC.

**Bettina Kay Ring**, Charlottesville, Va., who was appointed secretary of agriculture and forestry by Gov. Ralph Northam, received the Sir William Schlick Memorial Award from the Society of American Foresters and was elected a Fellow of the society. Also, she was awarded the 2018 President's Award from the Sustainable Forestry Initiative Inc.

**William Matteson Sisson**, Avon, Conn., was named executive director of the World Business Council for Sustainable Development North America.

**'86**

**CAREER Louise Holt Calderwood**, Arlington, Va., is director of regulatory affairs with the American Feed Industry Association.

**Arthur Glenn Davis**, Phoenix, Ariz., was named president of Vela Insurance Services, a Berkley Company.

**Kevin Barry Sullivan**, Weston, Mass., received the 2019 AIA Architecture Firm Award, the highest honor the American Institute of Architects can bestow on a practicing architecture firm in the U.S.

**Christopher Lewis Swan**, Virginia Beach, Va., is chief revenue officer with Dispersive Networks.

**Raghuram Tadepalli**, Elon, N.C., was named 2019 Beta Alpha Psi Outstanding Dean.

**'87**

**CAREER John Craig Asbury**, Richmond, Va., is the head of Union Bankshares Corp. and a member of the finance department's advisory board.

**Phillip Rodney Blevins**, Montpelier, Va., is president and CEO of Dominion Energy's Southeast Energy Group.

**Edward Robert Green**, Ashburn, Va., is a project executive at Gilbane Building Company in Washington, D.C.

**Brenton Jan Keefe**, Scituate, Mass., was elected to the Sustainable Forestry Initiative's Board of Directors.

**Percival George Ricketts**, Pembroke Pines, Fla., has developed a four-year guided journal available through online bookstores.

**Jackie Rustigian**, Alexandria, Va., retired from Army Civil Service.

**'88**

**CAREER Allison Parker Andrews**, Richmond, Va., joined the Monroe Park Conservancy as director.

**Nigel Anthony Greene**, Elkins Park, Pa., moderated a Pennsylvania Bar Institute seminar on truck accident litigation.

**Jeffrey Scott Kellerhouse**, Vinton, Va., is director of pre-construction for Breen Construction.

**Peter Jay Merkle**, Alexandria, Va., is head of the Federal Aviation Administration's Unmanned Aircraft Systems Integration Office.

**Gary Keith Morrill and Kristin Ruestow Morrill '91**, Blacksburg, Va., were named Virginia Tech 2019 Family of the Year.

**Sanjay Mahesh Shah**, Voorhees, N.J., is iManage managing director for Asia.

**BIRTH James Charles Galonsky**, Ft. Walton Beach, Fla., a daughter, 1/01/19.

**'89**

**CAREER Robert L Hogan**, Charleston, W. Va., joined the Pittsburgh office of Rawle & Henderson LLP as Of Counsel.

**Wendy Lu Critchfield Kesslak**, Sarasota, Fla., is an associate at RE/Max Alliance Group in Siesta Key.

**Kathleen Mary Murtagh**, Arlington, Mass., was appointed to the Massachusetts Department of Transportation board of directors.

**James Edwin Plowman**, Leesburg, Va., was elected to a circuit court judgeship in the Virginia 20th Judicial Circuit serving Loudoun, Fauquier, and Rappahannock counties.

**Robert Lee Richter Jr.**, Abingdon, Md., joined Independence Blue Cross as consultant relationship manager.

**Janet Watt Steele**, Fort Mill, S.C., joined Clemson University's Extension team as a forestry agent for Orangeburg, Calhoun, and Lexington counties in South Carolina.



## MERGING INTERESTS

When finance professor George Morgan suggested that two of his former students get to know one another, little did he know that the CEOs would later lead a merger to reconstruct something from their past: "a great Virginia-based regional bank," like the ones they once worked for.

Mike Clarke '83, CEO of Access National Corp., and John Asbury '87, president and CEO of Union Bankshares Corp., didn't cross paths as students at Virginia Tech, but met a couple of years ago at a meeting of bank CEOs in Richmond.

The completion of the merger, with Union acquiring Access, was announced in February. The combined company will have total assets of \$16.8 billion, deposits of \$12.2 billion, and loans of \$11.9 billion.

Read more about Clarke and Asbury at [magazine.pamplin.vt.edu/issues/spring-2019/va-bank-merge/](http://magazine.pamplin.vt.edu/issues/spring-2019/va-bank-merge/).

# RINGING IN THE STANLEY CUP

FOR YEARS, WASHINGTON, D.C., WAS a big sports city without a championship team. So, in 2018, when the Washington Capitals won the Stanley Cup, the city went wild.

But nowhere was the excitement more palpable than at Monumental Sports and Entertainment, which owns and operates the Capitals. Six Virginia Tech alumni, Darren Montgomery '95, Greg Turner '04, Ryan Shapiro '10, Megan Garner '10, Travis Lucente '15, and Lauren Zavaleta '17, were working for Monumental in sales and marketing at the time. (Lucente has since taken a position with a different employer.) They compared the feeling to game days at Lane Stadium.

"You almost felt like you were in Blacksburg at a Hokies football game because everybody in D.C. was rocking the red, as we say," said Montgomery, senior vice president of Capitals' sales and arena events at Monumental.

To celebrate the Stanley Cup win, team owner Ted Leonsis gave championship rings to nearly everyone working in the

stadium—including the Virginia Tech alumni.

"It was something that was very unexpected, but ... it was really cool for him to be able to go above and beyond for the rest of the organization," Shapiro said.

According to the alumni, D.C. is filled with Hokies.

"If I'm wearing Tech gear, someone will call out, 'Let's go,'" said Turner, senior director of sales and suites at Monumental.

Most of these alums grew up in the greater Washington, D.C., area, so when they returned to the city to work, they were happy to encounter fellow Hokies.

"So many people that come from [D.C.] go to [Virginia Tech], so it's nice to come back and just have even more of a connection with the Hokie community," said Zavaleta.

Virginia Tech has had a presence in Northern Virginia since 1969. Now, with Amazon's decision to build a second headquarters in National Landing and the newly announced Innovation Campus, that presence is expanding.



"It's going to be huge," Lucent said, "a pipeline of tech talent coming in and staying and working."

The Monumental Hokies have plenty to keep them busy, but they always find time to represent Hokie Nation.

"Four hours north, Virginia Tech still has a strong presence," Montgomery said. ■ OC

PUT A RING ON IT: (above) Tech alumni sport their championship rings. (below) Six Virginia Tech alumni (listed in the above story) were employed by Monumental Sports when the Washington Capitals brought home the Stanley Cup in 2018.



**Colin Brooks Winchester**, Lancaster, S.C., opened Fitness Machine Technicians in Charlotte, North Carolina.

'90

**CAREER Cynthia Ann Arnold**, Long Lake, Minn., was appointed to the Citrine Informatics board of directors.

**Timothy Albert Booth**, Yonkers, N.Y., performed in "Mamma Mia" at Mill Mountain Theatre.

**Shirley Elizabeth Winfield Drewry**, Disputanta, Va., is the deputy county administrator in Prince George County.

**Thomas Peter Fabrie**, Richmond, Va., is chief financial officer at INGENCO, a renewable energy company.

**Susan Tinsley Gooden**, Richmond, Va., was named interim dean of the L. Douglas Wilder School of Government and Public Affairs at Virginia Commonwealth University. She is a recipient of the YWCA Richmond's 2019 Outstanding Women Awards.

**Michael P. Maxwell**, Hartland, Wis., was named an adjunct faculty lecturer by the School of Business, Carroll University.

**Aimee Michelle Golden Johnson**, Seattle, Wash., was named Chief Marketing Officer with Zillow Group Inc.

**Ralph Allen Trinter**, Irmo, S.C., is vice president of field operations with McCrory Construction.

'91

**CAREER Joyce Agnes Cacho**, Edwards, Colo., a member of the board of directors for Sunrise Banks, was named one of 19 Directors to Watch by Directors & Boards Magazine.

**Jennifer Poff Cooper**, Christiansburg, Va., is a public relations specialist for the Virginia Department of Health, New River Health District. She has been published in the collection "Chicken Soup for the Soul: Life Lessons from the Dog."

**David "Buzz" Neil Crosby**, Raleigh, N.C., was selected to serve on the board of directors of the Wake Tech Foundation.

**Katherine Jean Hubbell**, Silver Spring, Md., received the Albert Nelson Marquis Lifetime Achievement Award from Marquis Who's Who.

**William L. Murray**, Richmond, Va., is senior vice president-corporate affairs & communications with Dominion Energy.

**Timothy Edward Pierce**, Laurel, Md., was named to the board of directors of Junior Achievement of Central Maryland Inc.

**WEDDING Pamela Sue Speed**, Roanoke, Va., and Brian "Stork" Seal, 10/07/18.

'92

**CAREER Jay Allen Altizer**, Dallas, Texas, is president of North America for GES.

**Paul Chodak III**, West Milford, N.J., is executive vice president-generation with American Electric Power.

**James Harry Jarrett**, Baltimore, Md., was appointed chief revenue officer for VXI Global Solutions.

**Joy Horner Kauffman**, Washington, D.C., hosted a "Whole Foods for Whole Body Health" class.

**Christopher S. Waltz**, Glastonbury, Conn., was named principal at Shepley Bulfinch.

**BIRTH Paul Joseph Zahorchak and Susan Marie Stanley-Zahorchak '04**, Roanoke, Va., a daughter, 8/28/18.

'93

**CAREER Jeffrey Brian Deibel**, Glen Allen, Va., is vice president of the Federal Reserve Bank of Richmond in the Supervision, Regulation, and Credit Department.

**Neal Franklin Wellons**, Virginia Beach, Va., is vice president of finance and accounting at Chartway Federal Credit Union.

'94

**CAREER William Wesley Griffith III**, Madison, Ala., joined Peco Foods as chief operating officer.

**Tamara A. KloECKi Nelsen**, Bloomington, Ill., is executive director of the Minnesota AgriGrowth Council.

**Angela Cutler Rambeau**, Duluth, Ga., is director of planning and development for the City of Georgetown, South Carolina.

'95

**CAREER James B. Daniel II**, Amelia Court House, Va., received the Virginia Forage and Grassland Council's Harlan White Distinguished Service Award.

'96

**CAREER Marc Christopher Brade**, Wytheville, Va., is fire chief with the Town of Wytheville.

**Mary Carroll**, Pacifica, Calif., is executive director of the Department of Emergency Management in San Francisco, California.

**Robert Allen Jessee**, Abingdon, Va., is plant manager for the Clinch River power generating plant.

**Scott Richard Kizner**, Harrisonburg, Va., is superintendent of Stafford County Public Schools in Virginia.

**Barry Irvin Matherly**, Richmond, Va., was named to lead a new economic development entity to promote 11 Southeastern Michigan counties.

**Kelly "Kathleen" McNany Gorman**, Cranford, N.J., is principal with Novogradac and Company LLP.

**Edward V. McAndrew**, Mechanicsville, Va., is chief operating officer with AIS Network.

**Floyd Cameron Palmore**, Powhatan, Va., is an associate and senior project manager with Dewberry.

**Andrew Ferguson Warren**, Blacksburg, Va., is the Town of Christiansburg's assistant town manager.



## AN ENERGIZING VISION

Fifteen years after meeting and making entrepreneurial plans as new students, Rob Wallace '00 and Walter Barnes '00 are realizing a vision with a unique project in the clean energy sector.

Leaning on Wallace's expertise in solar energy development, Power52 Foundation provides workforce development opportunities in the solar energy sector for at-risk and underserved individuals living in Baltimore and surrounding counties. And Barnes, president of PM Consulting Group, was selected to chair the board's foundation.

To date, the company has trained more than 100 people of all backgrounds and provided 30 megawatts of solar projects that will produce 40,000 megawatt hours of clean energy for 2,500 middle- and low-income households.

Read more about their work at [eng.vt.edu/magazine/stories/fall-2018/rob-and-walter.html](http://eng.vt.edu/magazine/stories/fall-2018/rob-and-walter.html).

# WORDS TO WALLS

MASTERING THE ELEMENTS OF STYLE

**Sue Ellen Pressman-Dosik**, Arlington, Va., is president-elect of the American Counseling Association for 2019-20.

**Mark A. Roy**, Oakton, Va., is executive vice president for Hourigan's Hampton Roads office.

**Mark Carson Walker**, Sterling, Va., earned the Large-Scale Manager designation from the Community Association Institute.

**Brad E. Williams**, Peterstown, W.Va., is president of The Safariland Group.

'97

**CAREER Timothy James Howland**, Blacksburg, Va., is project manager with Facility Logix.

**Gladys B. West**, Dahlgren, Va., was inducted into the Air Force Space and Missile Pioneers Hall of Fame.

**Stephanie Johnson Kalantarians**, Williamsburg, Va., is vice president and stockholder of Guernsey Tingle.

'98

**CAREER Erkan Baloglu**, Tulsa, Okla., is vice president of drug discovery and medicinal chemistry with resTORbio Inc.

**Michael John Burgiss**, Marietta, Ga., is chief product officer with DealerPolicy, LLC.

**Hau Huu Doan**, Charlotte, N.C., opened Banh Mi Brothers restaurant in Charlotte, North Carolina.

**Larry Anthony Patrizi**, Purcellville, Va., is executive vice president and provost at the American College of Financial Services.

**Thomas Joseph Pierri II**, San Francisco, Calif., is general manager of Hotel Zoe, a luxury boutique hotel at Fisherman's Wharf.

**Kai O. Torkelson**, Mount Crawford, Va., is the Norfolk Naval Shipyard commander.

**Jing Zhou**, Bristow, Va., company president, will lead the international expansion business effort for Pintec Technology Holdings Ltd.

'99

**CAREER Amanda C. Boone**, Bridgeton, N.C., is the public utilities director in Elizabeth City.

**Heather M. Massie**, New York, N.Y., presented her award-winning, interna-

tionally acclaimed play about actress and inventor Hedy Lamarr, "HEDY! The Life & Inventions of Hedy Lamarr" at the Cube in Virginia Tech's Moss Arts Center.

**Jocelyn Loren Oldham**, Richmond, Va., was voted as best wedding soloist in a Richmond Bride survey.

**Rachel Varner Smith**, Lewisburg, Pa., is vice president of human resources at Evangelical Community Hospital in Lewisburg.

**Caitlin Beck Stella**, Los Angeles, Calif., is CEO of Joe DiMaggio Children's Hospital.

**Michael D. Zehner**, Holliston, Mass., is the planning and development director for the Town of Nags Head, North Carolina.

**WEDDING Brian Isaac Seal**, Roanoke, Va., and Pamela Speed, 10/07/18.

'00

**CAREER Stephen L. Ambruzs**, Roanoke, Va., received a business placemaker award during the City-Works (X)po community development conference.

**Jeffrey M. Ellis**, Moseley, Va., is area construction manager at HHHunt Homes.

**Louis Joseph Molinini**, Oakton, Va., is the Mid-Atlantic Project & Development Services Market lead at Jones Lang LaSalle Inc.

**James Andrew Moore**, Baltimore, Md., received the 2019 Soul Justice in Education Award from the American Educational Research Association and the 2019 Asa G. Hilliard Model of Excellence Award.

**Vijaybalaji Padmanabhan**, Irving, Texas, is a director with KKR & Co. LP.

**Maurizio Porfiri**, Brooklyn, N.Y., was named a Fellow of the Institute of Electrical and Electronics Engineers.

**Christopher Russell Reading**, Indianapolis, Ind., was recognized with the 2018 Distinguished Alumnus Award from Indiana University-Purdue University Columbus.

**Ryan W. Smith**, Springfield, Va., is a partner in the Mechanical Patent Prosecution practice group at Oblon.

**Wayne Allen Wilkinson**, Vienna, Va., is executive vice president and chief operating officer with Ace Info Solutions.

**BIRTH Lisa Fletcher Pace**, Houston, Texas, a son, 8/7/18.

'02

**CAREER Mark William Abbott**, Spring, Texas, is director of engineering with ValvTechnologies Inc.

**Katherine L. Andersen**, Winchester, Mass., is a senior market manager covering health care corporate finance in the U.S. for Silicon Valley Bank's national life science practice.

**Daniel James Hibbard**, Sterling, Va., is vice president of electronic systems at Trident Systems.

**Kenneth Edward Nicely**, Roanoke, Va., is superintendent of Roanoke County Public Schools.

**Gary V. Parker Jr.**, Chesapeake, Va., is business development manager for Watts' drainage products and solutions in the eastern U.S.

**Heather Slayton**, Murfreesboro, Tenn., is assistant state forester for the Tennessee Department of Agriculture Division of Forestry.

**BIRTH Amanda Lee Halks Drezek**, Amesbury, Mass., a son, 03/18/19.

'03

**CAREER Michael J. Barber**, Huntington, Vt., is general counsel for Green Mountain Care Board in Montpelier.

**Anna Rebecca Shaffer**, Arlington, Va., is senior vice president of Jones Lang LaSalle Inc.

**Andrew Joseph Schulman**, Fairfax Station, Va., is diocesan OPCF director for the Diocese of Arlington.

**BIRTH Michelle C. Dominguez**, Washington, D.C., a son, 2/28/19.

'04

**CAREER Richard Matthew Bembem**, Arlington, Va., was elected director of the electronics practice group with Sterne, Kessler, Goldstein and Fox.

**Benjamin Hall Moore**, Venice, Fla., is superintendent of Catholic Education for the Diocese of Venice.

**Danielle Wight Nelson**, Washington, D.C., received the 2018 Silver Medal for Meritorious Achievement for leading the U.S. Department of

Transportation's efforts to develop a strategic plan for the interagency Coordinating Council on Access and Mobility.

**BIRTH Scott Lamar Pearce**, Alexandria, Va., a daughter, 1/7/19.

**Justin Kenneth Leiter**, Rockville, Md., a daughter, 2/28/18, and a son, 03/14/19.

'05

**CAREER Douglass Robbin Banerjee**, Dallas, Texas, is senior managing director at Greysteel.

**Youlander Moring Hilton**, Suffolk, Va., was appointed to the board of Paul D. Camp Community College and received the Joint Forces Staff College Commandment's Appreciation letter.

**Andrew Huber**, Roswell, Ga., is product strategy manager with GWC Warranty.

**Abhijit "A.P." Vijay Patel**, Ashburn, Va., is vice president of marketing and distribution strategy and operations with Choice Hotels International Inc.

**George Anthony Preston**, Woodbridge, Va., was one of four winners in the Virginia Lottery's inaugural "Made in Virginia" program.

**Robert Ryan Ruff**, Signal Mountain, Tenn., is senior vice president of strategic growth at Aflac Inc.

**Carol Elizabeth Watson**, Cumberland, Md., was named 2018 Teacher Educator of the Year by the Pennsylvania Association of Colleges of Teacher Education.

**Erin Michelle Webb**, Richmond, Va., earned an Emerging Professional Award from the American Institute of Architects Virginia.

**Christopher Lee Young**, Oakton, Va., joined Miller, Miller & Canby's Business and Tax Practice Group.

**BIRTH Daniel Blakey Heatwole and Lindsay Anne Williamson Heatwole**, Virginia Beach, Va., a daughter, 04/04/19.

**Dorothy Pendleton Heimlich**, Mechanicsville, Va., a daughter, 9/6/18.

'06

**CAREER David Eric Collins**, Blacksburg, Va., launched an online magazine, blacksmithingmagazine.com.

**WHEN AVERY SEFCIK '03 HOSTED** events at his home in Richmond, Virginia, guests frequently marveled at the elegance of the space. The interior decor featured touches of modernism in the dark blue hues, traditionalism in the old stone walls, and naturalism in the greenery sprinkled throughout. According to Sefcik, visitors often asked: "Who did you pay to do your house?"

"I didn't pay anyone to do my house," said Sefcik. "I can't afford that." But the common question inspired him to develop his unique talent.

Sefcik, a blog-writer turned interior designer, is now the owner of Avery Frank Designs, a full-service interior design firm in Richmond, Virginia. A graduate of the Virginia Tech College of Liberal Arts and Human Sciences, Sefcik

transitioned his background in language arts into a more visual craft. He studied the trade under an older designer in what Sefcik referred to as a "Devil Wears Prada" experience. Just two years later, Sefcik emerged with a successful business and many lessons to share on design.

**WHAT TRENDS ARE YOU FOLLOWING CURRENTLY IN DESIGN?**

"The magazines I read, they keep me updated on trends. I go toward magazines like Elle Decor, Architectural Digest; that's the aesthetic that I like. It's a bit more exciting, bold, more daring. One thing that I've done in my house is lacquer, which is super high-shine paint, and you'll see it in New York, in D.C, in Europe a lot. At night, when the lights are on, it's an amazing effect."

**HOW DO YOU WORK WITH A BUDGET, AS YOU DID WHEN YOU FIRST STARTED?**

"It does constrain you, but paint is still cheap. You can take something, simply add paint to it, a small piece of art that you found at an antique mall and really change a room just by being bold. The trend today is that everything is grey or white, and that's pretty, but take a risk. People will be saying, 'Wow, that looks great.'"

**HOW DO PEOPLE FIGURE OUT THEIR OWN STYLE?**

"It takes time for people to figure out their own style. Usually, it is really a gut thing. If you're in a store, and you see something you love, if it's a gut feeling, go for it. If you like it immediately when you see it, you'll love it for a long time."

On a basic level, buy the magazines—it is so important to be able to rip the pages out and put them on a board. Read them, look at what's exciting to you, rip them out—that's how you learn what you like, what you don't like, what your style is."

**WHAT ABOUT THE HOLIDAYS? HOW DO YOU KEEP YOUR DECORATIONS FRESH AND EXCITING?**

"I mixed it up this year—I usually do a lot of fresh greenery, which is really beautiful and a traditional thing that you see all over Europe, see it at the Biltmore Estate in North Carolina, but it does dry out quickly. This year, I did a different feel, where I used manmade garland. That was all flocked, which is when they have the fake white snow on them. There's more of a modern feel to it all as opposed to simple greenery." ■

*Brendan Coffey, a junior majoring in communication, is an intern with Virginia Tech Magazine.*



Avery Sefcik

COURTESY OF AVERY SEFCIK

**Rose Bradshaw Jeter**, Buchanan, Va., prompted by farming stress, proposed policies on mental health that were adopted by the commonwealth.

**Lorena "Rena" Jo Johnson**, Glade Spring, Va., operates Highland Dairy, a pilot farm for a new design for milking by DeLaval.

**Robert David Ritchie**, Aldie, Va., is head of software practice at Science Applications International Corp.

**Dawn Marie South**, Richmond, Va., formed a family law firm, DeBoer-South, PLLC.

**Ashley W. Winsky**, Henrico, Va., joined Gentry Locke as a partner in the Transportation, Insurance, and Civil Litigation practices.

## '07

**CAREER Kali Jane Casper**, Blacksburg, Va., is assistant planning director with the Town of Blacksburg.

**Kyle Matthew Kramer**, Forest, Va., is one of Engineering News Record Mid-Atlantic's 2019 Top Young Professionals.

**Namrata Loomba**, Gainesville, Va., joined Blank Rome LLP's Washington, D.C., office as an associate in the Consumer Finance Litigation group.

**Jeffrey Robertson Mettam**, Brooklyn, N.Y., is principal with Oak Hill Capital Partners.

**BIRTH Ashley Rood Spinetto and Jonathan Neil Spinetto**, Herndon, Va., a daughter, 11/15/18.

## '08

**CAREER Lindsay Christine Bade**, Lynchburg, Va., is project manager with Banker Steel.

**Anna E. Carpenter**, Virginia Beach, Va., is associate principal at Hanbury.

**Joshua Yost Haddad**, Virginia Beach, Va., purchased the Thomas Crown Studios.

**Govindaraj Dev Kumar**, Berwyn Heights, Md., published an article on salmonella in the January 2019 issue of the Journal of Applied and Environmental Microbiology.

**Brian Anderson Peters**, Raleigh, N.C., received his doctorate in educational research and policy analysis from North Carolina State University and is now associate director of academic advising programs and services at the school.

**Manisha Pravinchandra Patel**, Greensboro, N.C., received the 2018 Young Alumna Award by Elon Law's Women's Law Association and was recognized by Business North Carolina magazine as one of North Carolina's top lawyers for family law for the second year, earning the Legal Elite distinction. She is the 2019 president of the North Carolina Association of Women Attorneys.

**Andrew Graham Satterfield**, Midlothian, Va., is vice president of Scott Insurance in Richmond.

**Scott V. Totman**, Vienna, Va., is vice president of engineering with DivvyCloud.

**BIRTH Laura Valentine Breedlove**, Vestavia Hills, Ala., a son, 7/5/18.

**Andrew Paul Showalter**, Fairfax, Va., a daughter, 11/12/18.

**Andrew Shepard Rivenbark and Virginia Tyler Dougherty Rivenbark '11**, Suffolk, Va., a daughter, 8/16/18.

**Christopher Edward Sopko**, Gloucester, Va., a daughter, 12/13/18.

## '09

**CAREER Virginia Louise Lessard Davila**, Chesapeake, Va., is vice president of S.L. Nusbaum Realty Co.

**BIRTH Kathleen Berger O'Brien**, Saint Louis, Mo., a son, 8/7/2017 and a daughter, 01/10/19.

**Brian Edward Smith**, Bel Air, Md., a son, 01/09/19.

**Megan Lloyd Varrone**, Washington, D.C., a daughter, 03/12/19.

## '10

**CAREER Anthony Caleb Bauer**, Los Angeles, Calif., joined HNTB's national tunnel group as national tunnel practice operations manager-west.

**Skyler Glen Cooper**, Dallas, Texas, is regional manager for Marcus & Millichap.

**Caitlin Anne Grady**, State College, Pa., is the inaugural Faculty Fellow of Penn State University's Center for Security Research and Education.

**Atsuko Watanabe**, Washington, D.C., earned a Ph.D. from the University of Warwick in 2017 and is an associate professor at Hosei University in Japan.

**WEDDING Caroline Marie McWilliams Alsup**, Roxbury, Mass., and Justin Summer Brown, 11/3/18.

**Dennis Preston Hollich**, Fairfax, Va., and Emma Pearson-Hollich, 12/14/18.

**BIRTH Emily Hughes Hicks and Alan B. Hicks '11**, Arlington, Va., a son, 4/4/18.

**Lindsay Cobb Whit**, Crozet, Va., a daughter, 04/08/19.

## '11

**CAREER Brenton Byrd**, Elberon, Va., is principal at Sunnyside Elementary School in Dinwiddie County.

**Lindsay Nicole Chapon**, Lyndhurst, Ohio, is director of food and beverage for Hotel Revival.

**Emily Marie Feeney**, Olney, Md., is manager of capital markets and investments with Noble Investment Group.

**Danielle Marie Jakubowski**, Atlanta, Ga., is project architect at Blackney Hayes Architects in Philadelphia, Pennsylvania.

**Olivia Nicolai Marshall**, Blacksburg, Va., joined Caplin & Drysdale as an associate in the political law group.

**Evan Layne Synstad**, Los Gatos, Calif., relocated to Charlotte, North Carolina with Gilbane Building Company.

**WEDDING Emily Hollingsworth Reed**, Fairfax, Va., and William Weston, 10/20/18.

## '12

**CAREER Kevin Dean Rice**, Bristol, Va., is chief operating officer of B3 Group Inc.

**Chevon Nichole Dunning Thorpe**, Blacksburg, Va., is director of inclusion, diversity, and equity in the College of Agriculture and Life Sciences at Virginia Tech.

## '13

**CAREER Andrew Walton Beal**, Wake Forest, N.C., is communication specialist for the North Carolina Department of Commerce, an adjunct instructor of political science for Vance-Granville Community College, and secretary of the Franklin County Board of Elections.

**Marcus Benjamin Cadman**, Burke, Va., is an associate with Dewberry.

**Robbie M. Garnes**, Lawrenceville, Va., is assistant principal at Dinwiddie Middle School.

**Oliver Charles Joseph**, Worcester, Mass., is on the consultant medical staff with privileges in psychiatry at AdCare Hospital.

**Adam Paul Holbrook**, Madison, Va., joined Cushman & Wakefield, Thalhimier as portfolio manager.

**Elyssa Shay Bernstein Mackey**, Henrico, Va., joined the King Agency as social media manager.

## '14

**CAREER Bennett Thomas Willoughby Eastham**, Blacksburg, Va., is an associate at Christian & Barton LLP with the bankruptcy and creditors' rights and commercial litigation practice groups.

**Siddhartha Roy**, Blacksburg, Va., was named one of ten 2019 New Faces of Civil Engineering by the American Society of Civil Engineers.

**Sydney Katherine Vaughan**, Roanoke, Va., accepted a research position at Brown University.

## '15

**CAREER Kelly J. Cross**, Champaign, Ill., joined University of Nevada's Engineering Department

**Kathryn Dean Jackson**, Glen Burnie, Md., joined Pessin Katz Law, P.A. as an associate in the medical malpractice group.

**Gregory Alfonso Polinger**, Blacksburg, Va., is a project manager with Bognet Construction Co.

**Alec Yuzhbabenko**, Blacksburg, Va., is associate principal with Hanbury.

**WEDDING Chandler Alice Regina Eaglestone and Kyle Robert Krcmaric '18**, Bedford, Va., 08/10/18.

**Alicia Kattariya Everette and Demetrius Jeremy Lunsford '16**, Cincinnati, Ohio, 11/10/18

## '16

**CAREER Ashley Laken Adams**, Blacksburg, Va., is a portfolio analyst with AMJ Financial Wealth Management and earned the Certified Financial Planner designation.

**Erica Kelley Grant**, Mechanicsville, Va., launched a startup, Quantum Lock.

**Nancy Hardie Leonard**, Clover, Va., is 2019 Virginia's Region 8 Superintendent of the Year for 2019.

**Alexandra Paige Mitchener**, Blacksburg, Va., is commercial assistant portfolio manager for Hampton Roads with Thalhimier.

**Betty Knott Spiers**, Stony Creek, Va., an instructional specialist for innovation and development, is the 2019 Division Teacher of the Year for Dinwiddie Public Schools.

**Alan Kirk Thibault**, Blacksburg, Va., is the winemaker for Ashton Creek Vineyard.

**WEDDING Demetrius Jeremy Lunsford and Alicia Kattariya Everette '15**, Cincinnati, Ohio, 11/10/18.

## '17

**CAREER Saiara Musarrat Adrita**, Blacksburg, Va., was keynote speaker at The Daily Star O- and A-Level awards presentation ceremony at Shaheed Suhrawardy Indoor Stadium at Mirpur.

**Kathleen Anne O'Dell**, Dublin, Va., received the Presidential Award for Excellence in Mathematics and Science Teaching for K-6 Math from the National Science Foundation.

**Faizan Ahmed Hasnany**, South Riding, Va., is the Chicago Bulls basketball analytics associate.

## '18

**CAREER Victoria Lee Arczynski**, Falls Church, Va., has created her own tie-dye business, Just Vicky Thingz, and was featured on ABC7 News-Good Morning Washington.

**Rachel Christine Dodson**, Rhoadesville, Va., joined Clevengers Corner Veterinary Care.

**Owen Matthew Hoagland**, Davidson, N.C., joined Federal Capital Partners as an analyst on the asset management team.

**Linda Carol Jantzen**, Annandale, Va., is on the adjunct research staff for the Institute for Defense Analyses' Information Technology and Systems Division.

**Jasmine Alethia McNeil**, Manassas, Va., was hired to the architecture staff at HEWITT.



## 2020 ALUMNI

# TRAVEL TOURS

MAKE A MEMORABLE TRIP BETTER: TRAVEL WITH FELLOW HOKIES.

THE VIRGINIA TECH ALUMNI ASSOCIATION OFFERS TRAVEL OPPORTUNITIES FOR ALUMNI AND FRIENDS. EACH YEAR, THE ASSOCIATION SELECTS MORE THAN 20 TOURS.

Feb. 18-March 1  
New Zealand and the Circumnavigation of the South Island

Feb. 21-March 3  
Egyptian Wonder

March 2-13  
Tanzania: During the Great Migration

April 14-22  
Windmills, Tulips, and Belgian Delights

April 22-28  
California Rail Discovery

May 6-18  
Insider's Japan

March 5-15  
Legends to Lagoons

Experience the black-sand beaches of Papeete, relax on the beaches of Moorea, and see the coral churches of Fakarava. Visit the tallest waterfall in the world in Nuku Hiva and explore the marine life of Rangiroa.

\$4,299 per person  
(airfare included from select cities)

 ALUMNI.VT.EDU/TRAVEL

For more information about Alumni Association travel tours, go to [alumni.vt.edu/travel](http://alumni.vt.edu/travel).



# 「HOME-COMING」

**OCT. 17-18**

College of Agriculture and Life Sciences Tailgate

College of Engineering Tailgate

College of Natural Resources Tailgate

College of Liberal Arts and Human Sciences Tailgate

Graduate School Tailgate

Ex Lapide Tailgate

Virginia Tech Carilion School of Medicine Tailgate

Class of 1969 50th Reunion

Highly-Tighty Reunion



For more information, including a complete listing of events, visit [alumni.vt.edu/events](http://alumni.vt.edu/events).

# BEST IN CLASS



Caroline Eschenbach '10

IN ROANOKE, VIRGINIA, STUDENTS and faculty filed into the Virginia Heights Elementary School gym.

“We thought [the school] was being recognized, but then [the speakers] started talking about how one teacher would be recognized with \$25,000,” said Caroline Eschenbach, a third-grade literacy teacher. “I thought, ‘No way’—then they called my name.”

Eschenbach, a 2010 Virginia Tech graduate, and now, a Milken Educator Award winner, was ushered to the front of the room, which was roaring.

For 30 years, the Milken Educator Awards, often called the Oscars or Grammys of teaching, have rewarded and inspired excellence in education. The awards target early-to-mid career education professionals in the U.S. Eschenbach was the lone winner in Virginia for the 2018-19 school year.

In the classroom, Eschenbach emphasizes literacy and critical thinking. She exposes her students to reading materials that range from books to news articles and creatively reinforces their learning. According to Eschenbach, third grade is an often transformational, yet tumultuous year for students.

“We are a school that receives Title I funding and has a diverse population of students,” said Eschenbach. “A lot of these kids come from more challenging experiences that make it difficult to have a more even playing field in terms of testing.”

Despite these challenges, the reading scores for Eschenbach’s students have been phenomenal, thanks to her hands-on, relationship-building style.

“Rhymes, rhythms, dances, and whatever it may take to make more of an impact” are all classroom standards, according to Eschenbach. “You build rapport first and have academics second.” ■

*Brendan Coffey, a junior majoring in communication, is an intern with Virginia Tech Magazine.*

LOGAN WALLACE, CHRISTINA FRANUSICH, PHOTO COURTESY OF THE MILKEN FAMILY FOUNDATION

# FUELING CARBON CONSCIOUSNESS



Ranjani Siriwardane

VIRGINIA TECH ALUMNA **RANJANI** Siriwardane is an award-winning researcher and inventor who is working toward an environmentally safe way to convert fossil fuels into energy.

A native of Sri Lanka, Siriwardane, who earned a master’s and a Ph.D. in physical chemistry from the College of Science at Virginia Tech, is a researcher at the U.S. Department of Energy’s National Energy Technology Laboratory (NETL) in Morgantown, West Virginia. She holds 21 U.S. patents for various inventions focused on oxygen carriers, chemical looping, and chemical stability. She also has received three R&D 100 awards. Known as the “Oscars of Innovation,” these awards honor revolutionary ideas in science and technology.

Recently, Siriwardane and her team at NETL have been using a method known as chemical looping to convert fossil fuels to electricity and capture carbon. The process produces a nearly pure stream of carbon dioxide that can be captured without using the extra energy often required to separate gas streams.

The carbon dioxide can then be stored underground permanently or used to produce other goods.

Chemical looping could reduce emissions from coal-burning energy plants, but the process is expensive. Siriwardane and the team at NETL are continuing to conduct research and investigate opportunities to team up with industrial partners to find economical ways to develop the process on a commercial scale.

In addition to her research, Siriwardane mentors graduate students at West Virginia University. She said working with the students is rewarding because of their enthusiasm and new ideas. Siriwardane hopes to inspire the next generation of engineers to consider environmental quality when developing new products.

“Environmental quality is very important,” said Siriwardane. “We need to be concerned about people, the environment, and how that impacts day-to-day life. New products are important, but so is the quality of the environment.” ■

*Haley Cummings, a junior majoring in public relations, is an intern with Virginia Tech News.*

“

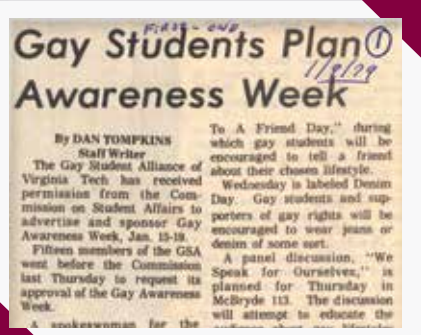
**WE NEED TO BE CONCERNED ABOUT PEOPLE, THE ENVIRONMENT, AND HOW THAT IMPACTS DAY-TO-DAY LIFE.**

NEW PRODUCTS ARE IMPORTANT, BUT SO IS THE QUALITY OF THE ENVIRONMENT.”

Ranjani Siriwardane M.S. '80, Ph.D. '81

TIM FORD





STYLING: Participants in Virginia Tech's Denim Day Do-Over gathered for a photo in the Moss Arts Center. (at right) News clippings and promotional fliers from the first Denim Day on the Blacksburg campus are a part of the historical archive.

# DENIM DAY DO-OVER

VIRGINIA TECH HELD ITS FIRST DENIM Day 40 years ago, and although participants might suggest the event was less than successful, denying the existence of the LGBTQ+ community at Virginia Tech became nearly impossible. "You cannot say that people in 1979 did not know that there were gay students [at Virginia Tech]," said Nancy Kelly '81. Then co-president of the university's Gay Student Alliance, Kelly helped lead the event that asked Hokies to sport denim in support of gay rights and

resulted in a flurry of animosity that lingered for decades. Last summer, Kelly returned to campus for the first time since her graduation and was surprised by the university's efforts to be more inclusive. "I started looking around and seeing all these little rainbow things. I was blown away there was an LGBTQ+ Center," Kelly said. The visit was the first step in launching this year's "Denim Day Do-Over," an

event that recognized the 40th anniversary of the original day and was held in conjunction with Pride Week, April 1-8. The celebration marked the first return to campus for many LGBTQ+ alums and for many solidified the importance of what they endured four decades earlier. ■ MA

 FLASHBACK  
Read more about the Denim Day Do-Over at [vtmag.vt.edu](http://vtmag.vt.edu).

MICHAEL FOLTA, SPECIAL COLLECTIONS



SCATTERED SHOWERS: A brief weather delay didn't dampen the spirits of the families, graduates, or speakers, like Mark Lawrence '80, at the 2019 spring commencement.

# HONORED TO SERVE

AS PRESIDENT OF THE VIRGINIA TECH Alumni Association's Board of Directors, I have the honor of speaking at commencement each spring. There's little that compares to the feeling in Lane Stadium on graduation day. Recently, I asked the Class of 2019 to reflect on their time at Virginia Tech. I asked our newest group of alumni to think about what makes our university special and to always show their Hokie pride. This year, as my time as board president ends, I find myself also thinking back on my time at Virginia Tech. As a four-term member of the Alumni Association board, I've seen our university move and advance in exciting ways. Like those new grads in Lane Stadium, I'm nostalgic about the past AND enthusiastic about what's next. During my time as president, Virginia Tech made an impact in many ways, including the announcement of the Innovation Campus in Northern Vir-

ginia, and made history when the Fralin family in Roanoke made the largest gift our university has ever received. We also started new traditions—Giving Day and Reunion Weekend—and committed ourselves to storied legacies, such as the Old Guard Society of Golden Alumni. We watched our student athletes excel in ways that make all of us Hokies proud. The men's basketball team advanced to the Sweet 16 in the NCAA tournament; we celebrated a national champion in young Mekhi Lewis, who earned that prize in wrestling as a freshman; and the women's softball team won the ACC regular season title, while the indoor track and field team claimed the conference championship. And, of course, our football team retained the Commonwealth Cup for the 15th consecutive year after defeating that school from Charlottesville. These successes, and many more, are examples of how Virginia Tech contin-

ues to grow and have relevance in lives and communities across the state, region, country, and globe. What I've observed during my time as board president is a university prepared for the future and poised to change the world. In July, Deseria Creighton Barney will become our leader of the association board. She has been an active member of the Hokie alumni community, and I am excited about her leadership and the great work she will do representing you. I hope you'll join me in congratulating Deseria. It has been an honor beyond measure to serve our beloved alma mater in this particular role. I hope I've had a fraction of the impact on our alumni community as that same community has had on me. GO HOKIES! ■ *Mark S. Lawrence '80 is vice president of governmental and external affairs at Carilion Clinic and president of the Virginia Tech Alumni Association Board of Directors.*

SKLER TAUBE

# FAMILY

**1** “We are proud to introduce our future Hokie, Rowan Denise Spinetto, Class of 2040.” —Ashley Rood Spinetto '07, Herndon, Va., who along with Jonathan Spinetto '07, welcomed a daughter, Rowan Denise, 11/15/18.



ASHLEY ROOD SPINETTO '07

**2** “Our Hokie marriage began with a wedding on a perfect fall day.” —Alicia Everette Lunsford '15, M.S. '16, Cincinnati, Ohio, who married Demetrius Lunsford '16, 11/10/18.



LISA ROGERS

**3** “We are happy to share the news of our new arrival with our fellow Hokies.” —Christi Santora '08, Chesterfield, Va., who along with Jason Santora '09, welcomed a daughter, Avery Ruth, 12/6/18.



ERICA HALLER PHOTOGRAPHY

**4** “Just married and ready to shout the happy news to everyone.” —Emily Reed Wesson '11, Fairfax, Va., who married William Wesson, 10/20/18.



GRACE HART

**5** “Evelyn Anne looks forward to her arrival in Blacksburg with the Class of 2040 as a fourth-generation Hokie. Her alumni family includes aunt Sarah Woodford Bratton '14, uncle Paul Bratton '13, grandparents Howard and Linda Woodford '82, and great-grandfather Howard “Winston” Woodford '50.” —Anna Clark Woodford Seibert '09, Beavercreek, Ohio, who along with Matthew Thomas Seibert '07, welcomed a daughter, Evelyn Anne, 4/23/18.



BELLA BABY PHOTOGRAPHY



JO



KRISTIE LEA PHOTOGRAPHY



LISA FLETCHER PACE '00



SAMANTHA LETO

**6** “We got married on the roof of War Memorial Chapel and took photographs on the Drillfield.” —Hayley Nixon McCord '17, Henrico, Virginia, who married Nick McCord '17, 10/13/18.

**7** “Hokies past and future: Adam Pace snuggles with his grandmother, Catherine G. Fletcher '69.” —Lisa Fletcher Pace '00, Houston, Texas, who welcomed a son, Adam James, 8/7/18.

**8** “Another little Hokie came into this world as Oliver Dewey Hicks.” —Emily Hicks '10, Arlington, Va., who along with Alan Hicks '11, welcomed a son, Oliver Dewey, 4/4/18.

**9** “We met at Virginia Tech in 2013 and got married at a rooftop venue in Roanoke, Va., surrounded by friends, family, and the Blue Ridge Mountains.” —Chandler Eagleston '15, Brandon, Fla., who married Kyle Krcmaric '18, 8/10/18.





STILL  
LIFE

THROUGH THE LOOKING GLASS: Virginia Tech's main greenhouse range, which is associated with the School of Plant and Environmental Sciences in the College of Agriculture and Life Sciences, is located on the corner of Washington Street between the Hahn Horticulture Garden and McComas Hall. The 51,000 square feet of space includes the Keck Greenhouse Range and the Jacob P. Lutz Teaching Greenhouses. Many departments and programs use the greenhouses for teaching, research, and Extension activities.

SKYLAR TAUBE



Charlie Phlegar

# END NOTE

## STANDING AT AN INFLECTION POINT IN HISTORY

### WE FACE A RAPIDLY CHANGING WORLD

that's more global and more diverse than the one I graduated into. Our graduates today will enter a world that's moving more quickly than we can imagine. It's imperative that we change as a university as well.

We're seeing that change in Alexandria, where Virginia Tech will build its Innovation Campus as the Commonwealth of Virginia ramps up its efforts to increase the tech-talent pipeline to support the growing tech sector, including Amazon's second headquarters. This is an amazing opportunity to expand our presence in the greater Washington, D.C., area, which will soon become one of the great digital economies of the world. We're going to be right in the middle of it, which will give our students and faculty tremendous opportunities—not just in Northern Virginia but in Roanoke, Blacksburg, and throughout Virginia.

In Roanoke, we're making tremendous advances at the Fralin Biomedical Research Institute at VTC and the Virginia Tech Carilion School of Medicine. Over the past decade, Virginia Tech has expanded its research and academic portfolio by adding a medical component, an element that's a must for any comprehensive university. These enterprises have turned out to be game-changers for the university, for Roanoke, and for Virginia.

Layer in the countless research projects through which Virginia Tech is tackling the complicated problems of our world. The ambitious Global Business and Analytics Complex intersects with the future of data analytics and data science. The university's groundbreaking work with brain research has implications for everything from sports to vehicle safety. The university's partnerships with business and the corporate world to develop autonomous vehicles and intelligent infrastructure are changing the way we see roads.

When you consider these and the many other projects in motion, it's clear that Virginia Tech is positioned like no other university in the world. This is truly our moment.

To make this leap forward, though, one thing is clear: Today's best universities thrive because of private giving from their proud alumni. We're thankful for the funding that tuition and state support provide, but philanthropy is the sustenance that we need to boost our efforts.

The beginning of the upcoming capital campaign, which we'll launch in October, is a pivotal moment. Building upon our rich history and broad reach, the vision for tomorrow's Virginia Tech represents an opportunity for not only alumni, but friends, foundations, and corporations to invest in something quite significant.

Through the campaign, we will ensure that Virginia Tech emerges as one of the most respected and premier institutions in the world. That's not hyperbole. But it will take our collective leadership and participation. It will be difficult, and it won't happen overnight. It will take the \$10 gifts and the \$10 million gifts. It will take mentoring students and helping faculty commercialize their inventions. It will take all of us deciding to invest in Virginia Tech graduates who will change the world.

This campaign will take a monumental effort to succeed. I'm excited by the opportunity to meet the challenge, especially as we approach the institution's sesquicentennial—our 150th anniversary—in 2022. And just as importantly, I'm optimistic.

This moment is happening because of our dedication to our motto, *Ut Prosim* (That I May Serve). Your expertise, hard work, and commitment to serve have gotten us to this point. And I believe to my core that those same values, paired with our sustained investment in the future, will transform this university. The world needs Virginia Tech and its commitment to serve. We need you to help us get there. ■

*Charlie Phlegar is the vice president for advancement at Virginia Tech.*

# This is home.

## REUNION WEEKEND 2020

1986



SANDRA WORLEY '78  
 GARY M. WORLEY '78, '94, '99  
 SARAH WORLEY MCDEARIS '08 '15  
*(in stroller, in retro photo)*  
 ADALINE MCDEARIS 2040?

2019



Virginia Tech is home. Reconnect with friends, family, and campus during our four-day summer reunion.

Enjoy dinner on the Drillfield, behind-the-scenes campus tours, children's activities, happy hours, presentations from university leaders, and more.

**SAVE THE DATE: JUNE 4-7, 2020**



ALUMNI.VT.EDU/REUNION2020

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- CHOOSE "HOKIE PLUS"
- THEN CHOOSE "UPDATE ADDRESS(ES) AND PHONE(S)" OR "UPDATE ALUMNI EMAIL ADDRESS(ES)"

YOU CAN ALSO EMAIL YOUR UPDATES TO ALUMNIDATA@VT.EDU. MAKE SURE YOU INCLUDE YOUR FULL NAME AND CLASS YEAR IN THE EMAIL.

## VIRGINIA TECH magazine

Visit us online to read even more stories about your fellow Hokies, find links to events and campus activities, and stay up-to-date on university news.

**VTMAG.VT.EDU**



## IN OUR NEXT ISSUE

Virginia Tech's history is rooted in agricultural education and research. Today, advances in technology are transforming the future of farming in the U.S. and around the world. Virginia Tech research and education are helping farmers provide for the growing needs of an expanding population and are promoting safe and healthy harvests.

How does growth affect campus transportation? From bicycles and buses to skateboards and scooters, students, faculty, and staff are exploring alternative ways to move around campus quickly and safely.

You'll find stories about these topics and many more in the fall issue of Virginia Tech Magazine.