THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

SUMMER ISSUE 2018

INSPIRING

Stanton Rowe offers 'valuable life lessons' at commencement

INSIDE:

FRIENDSHIPS

Bonds formed at UAH stand the test of time

TECHNOLOGY

Innovator says time is right for next big thing

ACHIEVEMENT

Cosmic smashup lands top prize in astronomy

SAVE THE DATE!

June 1
Sign-ups open for
Mentor-A-Charger (MAC) Program

August 14
Alumni Association
Annual Meeting and Convocation

October 27
Alumni of Achievement
Awards Ceremony

Email **alumni@uah.edu** if you're interested in mentoring a current student or would like to RSVP to these events!

UAH HOMECOMING

OCTOBER 24–27, 2018

GREETING

Welcome to the first-ever alumni edition of the UAH Magazine! Inside you will find stories on alumni with a passion for UAH and a desire to connect, explore, discover and create. From driving technological innovation to fostering connections with their alma mater and their long-time UAH friends, UAH alumni are successfully changing our community and beyond for the better.

Please take a moment to read through the successes and endeavors of some of your fellow Charger alumni.

Fall commencement speaker Stanton Rowe, on page 3, headed the team that developed an innovative transcatheter aortic heart valve replacement that's in over 150,000 patients worldwide.

On page 6, we discover how Dr. Colleen Wilson-Hodge and her NASA team captured gamma-rays from a collision of two neutron stars that confirmed the smashup generated the gravitational waves recorded at the Laser Interferometer Gravitational-Wave Observatory (LIGO), landing the top prize in high-energy astronomy.

Pursuit of the next technological innovation drives Grady Gaston, founder, CEO and owner of Gradkell Systems. On page 10, Gaston shares an important factor critical to his success.

UAH was the foundation for a lasting friendship for a group of alumni celebrating 15 years of togetherness, as we'll see on page 13.

Dr. P.J. Benfield matriculated at UAH and then stayed on as faculty after graduation. The creator of UAH's InSPIRESS program that reaches out to high school students state-wide to interest them in science, technology, engineering and math (STEM) is featured on page 15.

On page 17, we learn that UAH graduate honor student Jasmine A. Moore is the recipient of the Eugene Cota-Robles fellowship at the University of California-Riverside.

A visit to campus to discuss starting a UAH Alumni Chapter at nou Systems Inc. was eye-opening for Ashley Elledge, who had not been back since 2007. On page 20, we learn how that visit propelled new involvement with his alma mater.

Carolyn Dodd and Chandler Elder made such an impression on faculty members, the College of Education named the UAH Dodd-Elder Physical Education Major of the Year award in honor of the students, as we find out on page 24.

We are proud of our alumni and are eager to celebrate the accomplishments of our Charger family. Let us hear from you!

Check out the new alumni website at **www.uah.edu/alumni** and connect with us through our monthly alumni e-newsletter and social media to learn more about ways you can get involved and stay connected with your alma mater. Whether it's cheering on the Chargers at a hockey or basketball game, mentoring a current student, peer reviewing undergraduate research, getting involved in an alumni chapter, or recruiting prospective students, there are ample ways to show your support and get inspired through the happenings at UAH and your UAH Alumni Association.

With Charger Pride, happy reading!

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

MALLIE HALE

SENIOR DIRECTOR OF UAH ALUMNI RELATIONS &
EXECUTIVE DIRECTOR OF THE UAH ALUMNI ASSOCIATION

CONTENTS

features

UP FRONT

Stanton Rowe, head of a team that developed an innovative heart valve replacement, is still deeply involved in new life-saving medical devices.

ACHIEVEMENT

A celestial smashup led to the 2018 Bruno Rossi Prize for a significant contribution to high-energy astrophysics for Dr. Colleen Wilson-Hodge and NASA's Fermi Gamma-ray Burst Monitor team.

TECHNOLOGY

Great opportunities exist now for new ideas in technology, says Grady Gaston, founder and owner of Huntsville-based Gradkell Systems Inc.

LASTING FRIENDSHIPS

Strong bonds formed at UAH have been a bounty for a group celebrating 15 years of close friendship.

ACADEMICS

P.J. Benfield first saw UAH as an eighth grader. Today, the InSPIRESS program creator teaches a senior design class and is a research engineer at the Systems Management and Production Center.

STANTON ROWE

Heart valve replacement innovator comes full circle with commencement address

Alumnus Stanton Rowe, who headed the team that developed an innovative transcatheter aortic heart valve replacement (TAVR) that's in over 150,000 patients worldwide, came full circle on Dec. 10 as UAH's fall commencement speaker.

Rowe (BS, Biological Sciences, '75) is deeply involved in the development of medical devices. The TAVR device and associated procedure allow replacement of the defective heart valve without open-heart surgery, cardiopulmonary bypass, or even anesthesia.

With 32 patents and 50 pending, Rowe is chief scientific officer and corporate vice president at Edwards Lifesciences LLC in Irvine, Calif., and says he was incredibly honored to speak to the graduates.

"Even though I work with students frequently through university recruiting, mentorship and work on university advisory boards, the prospect of speaking to this broad range of students and, in particular, saying something meaningful and inspiring, was somewhat daunting," he says. "I decided that it was all about being genuine; make it personal! So that is how I approached it. It was similar to a really tough assignment from a professor, except this assignment was from the president of the university!"

The challenge made the speech fun, Rowe says.

"I really enjoyed the opportunity to be with the students on such a special day for them and their families, and I hope I provided them with some entertaining anecdotes from when I was a student, as well as some valuable life lessons I have learned since I was in their shoes."

As a UAH student, Rowe was interested in medicine and biology, but says he had little interest in medical school.

"The scientific rigor at UAH was a terrific background for furthering my career," he says. "The best professors – and I had many – want to teach you to think, inquire and research, not just regurgitate."

Closer involvement began anew when Rowe was named one of the Alumni of Distinction in 2009.

"It has been a privilege to get to know many of the professors and staff at UAH," he says. "I still take great pride in the school and have witnessed the thoughtful growth and maturation of the campus. UAH remains a keystone to the growth and technological prowess of North Alabama."

Rowe joined Edwards in 2004 after it acquired Percutaneous Valve Technologies (PVT), which Rowe helped found in 1999 and where he was president and CEO. There, the TAVR was developed.

"This has been a breakthrough for many very ill patients all around the world. We started development in 2001 in Israel and completed our First in Human case in April 2002," Rowe says. "We were the first company in the world to develop such a device and procedure, despite many expert naysayers. It was very difficult; we failed many times along the way. We still have a nice-sized facility in Israel – about 60 people – developing the next generations of these impactful devices."

The TAVR device and associated procedure allow replacement of the defective heart valve without open-heart surgery, cardiopulmonary bypass, or even anesthesia.

Stanton Rowe and Dr. Ray Vaughn, then UAH vice president for research and economic development, look over a Gemini-era computer switchboard in Von Braun Research Hall.

Photo credit: Michael Mercier/UAH

In California, Edwards research and development employs about 800 biomedical engineers developing a range of new cardiovascular therapies.

In Germany, where it has been available to physicians the longest, TAVR represents about 50 percent of procedures to replace the aortic valve. Data in the U.S. suggest that it is about 55 percent of procedures. In the U.S., more than 500 hospitals – including Huntsville Hospital – perform TAVR. Globally, nearly 1,500 hospitals use the device, which resides in former U.S. Sec. of State Henry Kissinger and was used by actor and singer Jim Nabors.

"We are in our fourth/fifth generation, as we now have both a self-expanding and a balloon expandable version of the valve, which is two different types of insertion and deployment. The balloon expandable is fourth generation. It is a testament to the strategy of self-obsolescence. We should improve our products continuously to improve patient outcomes, and these newer products do exactly that: improve patient outcomes!"

Rowe also serves on the board of directors of InSeal Medical Ltd. since 2010 and as a director of Neural Analytics since 2015.

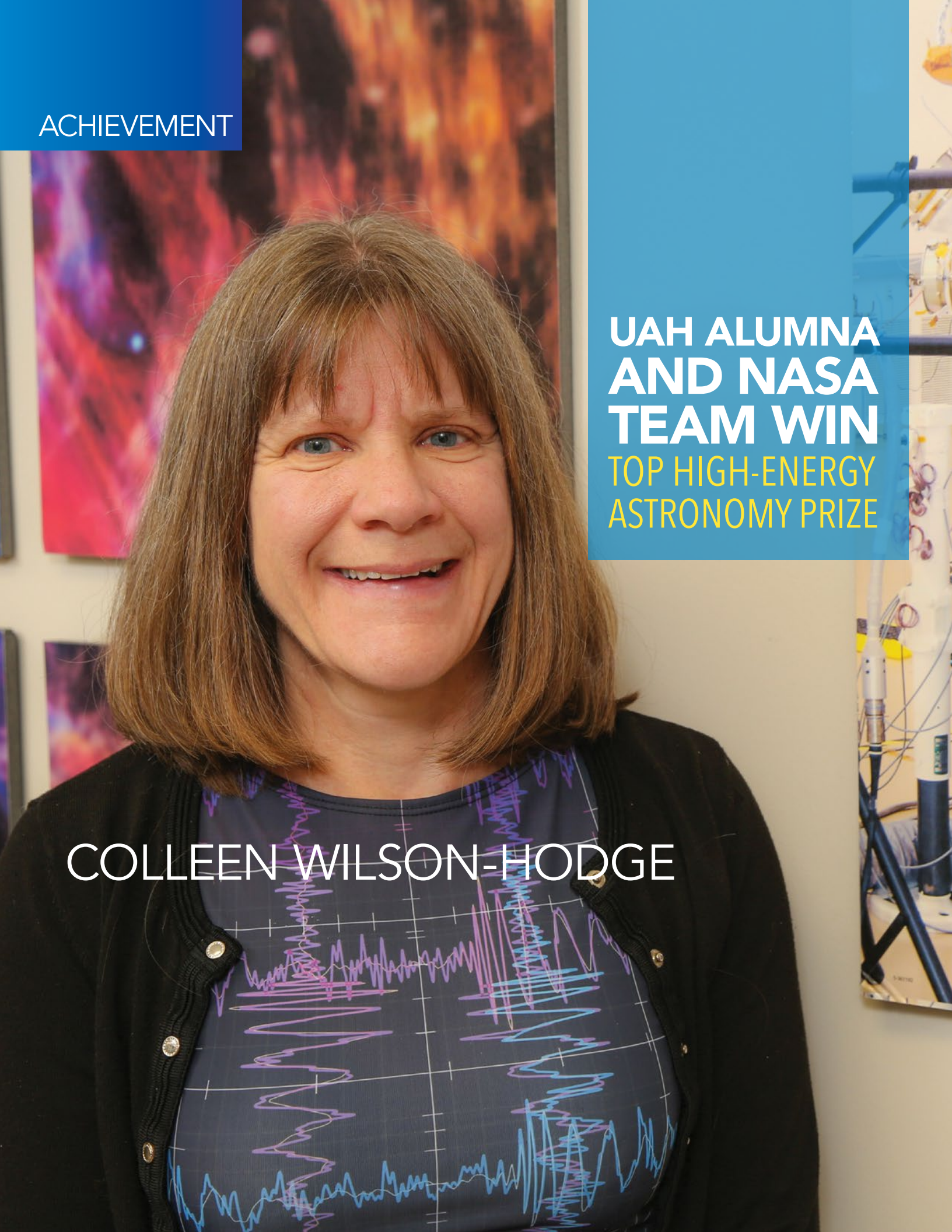
At Edwards, Rowe continues work to define, prototype, test and evaluate new cardiovascular technologies. Outside board work provides opportunities to help patients and also learn new management skills.

"I joke with my boss that I can never be expert at my job – because, really, all I have to know is how to help run a $3.5 billion company, including R&D, finance, legal, HR, strategy, marketing and sales; know all the medicine in structural heart disease; and know all the biomedical engineering that pertains to our programs," he says. "It is a testament to continuous education. Your degree is a license to learn."

With his wife Chiyo, Rowe lives in Newport Beach, Calif., and has five children, including three from a previous marriage.

"Regarding my two youngest, I like to say that I currently have two freshman: one a freshman in college and one a freshman in high school," he says. "My oldest daughter is an educator, working in the Chicago school systems, with two masters and just completing her doctorate; my oldest son manages a big data analytics group in Atlanta and has a masters in statistics; and my daughter in California is still finding her path. All of them are much smarter than me, especially my wife. I just try to keep up."

ACHIEVEMENT



UAH ALUMNA AND NASA TEAM WIN

TOP HIGH-ENERGY ASTRONOMY PRIZE

COLLEEN WILSON-HODGE

Capturing the gamma-rays from a collision of two neutron stars using NASA's Fermi Gamma-ray Burst Monitor (GBM) confirmed the smashup generated the gravitational waves recorded at the Laser Interferometer Gravitational-Wave Observatory (LIGO), and landed a UAH alumna and her NASA team the top prize in high-energy astronomy.

Dr. Colleen Wilson-Hodge (M.S., Physics, '96; PhD, Physics, '99) and the GBM team are the recipients of the 2018 Bruno Rossi Prize, awarded by the High Energy Astrophysics Division of the American Astronomical Society (AAS) for a significant contribution to high-energy astrophysics with particular emphasis on recent, original work. Dr. Wilson-Hodge will give a lecture at the 233rd AAS meeting in Seattle, Wash., in January 2019.

The GBM evidence sped up the process of finding the event and announcing it to the scientific community so more observations could take place.

"The observation of a short gamma-ray burst 1.7 seconds after the gravitational wave event and in the same part of the sky made the discovery of gravitational waves unambiguous, with a 1 in 20 million chance coincidence – meaning that is the probability of two unrelated events occurring by chance that close together in time and space," says Dr. Wilson-Hodge. "We knew that this gamma-ray burst (GRB) was special about 40 minutes after the trigger, when we got an e-mail entitled 'WAKE UP' from Dr. Tyson Littenberg of NASA Marshall Space Flight Center, who is a member of both GBM and LIGO."

The e-mail said, "this morning's GBM trigger has a friend…" That began several weeks of intense work by the entire GBM team. Dr. Adam Goldstein of the Universities Space Research Association (USRA), also a UAH doctoral graduate, performed the first human-in-the-loop localization and led the GBM team paper on this event, Goldstein et al. 2017, "An Ordinary Short Gamma-ray Burst with Extraordinary Implications: Fermi-GBM Detection of GRB 170817A", ApJ, 848, L14.

"It was then we began to really realize what we had," Dr. Wilson-Hodge says. "Not only did the time nearly coincide, but the gravitational wave and the short GRB were from the same part of the sky."

Instead of pictures, GBM's detectors record counts. It's like pointing a plate at the sky and counting the light that hits it. When a source of gamma-rays – like a gamma-ray burst – goes off, the detectors see a sudden increase in the count rate.

"We detect this on-board and call it a trigger. At that point the GBM flight software sends out an alert to NASA's Tracking and Data Relay Satellite (TDRS) system, which quickly sends a signal to the ground," Dr. Hodge-Wilson says. "These signals are sent out to the world through something called the Gamma-ray Burst Coordinates Network (GCN) and to our phones."

GBM triggered on-board the spacecraft on the gamma-ray burst, notified the world 14 seconds later and produced its first sky localization 25 seconds later.

"This was before anyone knew about the gravitational waves," says Dr. Wilson-Hodge. A pipeline linking GBM, other gamma-ray satellites and LIGO alerted LIGO researchers to the GBM detection. "GBM's alert helped to make the LIGO team aware of this event sooner than they would have otherwise and helped to kick off the worldwide observations of this event. Once LIGO/Virgo announced the gravitational wave detection to their electromagnetic partners, telescopes around the world, on the ground and in the sky, started following up."

On that active morning, Dr. Wilson-Hodge's phone alerted her as she trained in a class aptly named "Jump Starting High Performing Teams." She participated in data analysis for the resulting scientific papers and represented the team for the capstone paper, Abbot et al. 2017, "Multi-messenger Observations of a Binary Neutron Star Merger," ApJ, 848, L12.

"It was an amazing short paper that brought together the gravitational wave observations and initial counterpart observations. I coordinated work with the INTEGRAL team – who also later detected the event in their data – for a joint paper, Abbot et al. 2017, "Gravitational Waves and Gamma-rays from a Binary Neutron Star Merger: GW170817 and GRB 170817A", ApJ, 848, L13, with the LIGO/Virgo team where we described the science one could extract from the gamma-rays and gravitational waves together," she says.

Initially, the discovery was kept under wraps. The policy of the LIGO/Virgo team was to keep discoveries secret until they have finished their analysis, made sure it is correct and have an accepted paper.

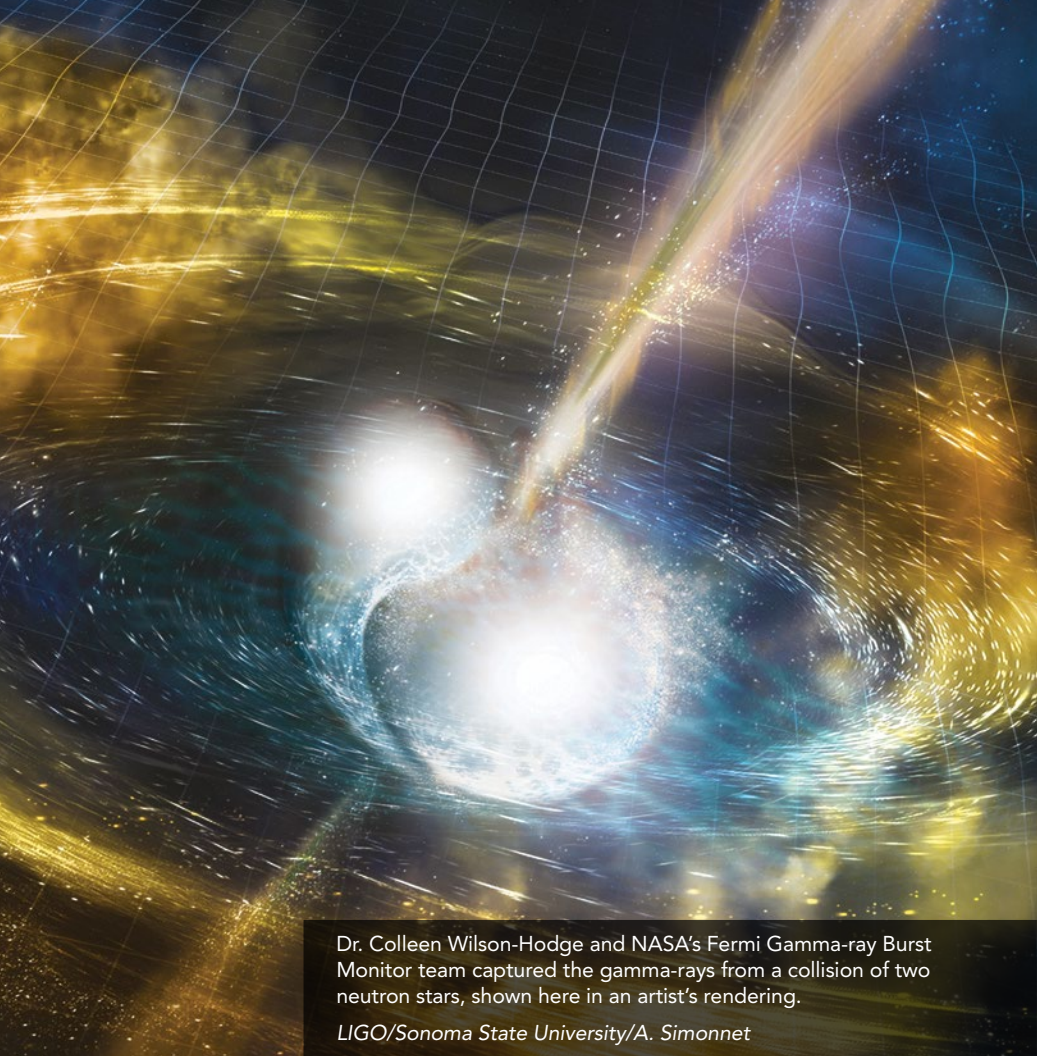
"This is a reasonable scientific practice, to avoid getting bad results out, but it was hard for me because just days after this event occurred, I gave a presentation about GBM searches for counterparts to gravitational waves, and I couldn't say a word!" Dr. Wilson-Hodge says. "The papers came out about two months after the event, and that is extremely fast work."

Scientists found out a lot from that singular collision. They measured the speed of gravity more accurately than ever before, for example, finding it to be the same as the speed of light within one part in one quadrillion.

"This event also tests the equivalence principle, in layman's terms the idea that physics doesn't chance with distance or time," says Dr. Wilson-Hodge. "We learn a lot about the gamma-ray burst itself, including the fact that it was produced by merging neutron stars. This gamma-ray burst was unusually

The GBM team confirmed a neutron star smashup generated gravitational waves recorded by both of the twin Laser Interferometer Gravitational-wave Observatory (LIGO) detectors, located in Livingston, La., and Hanford, Wash.

LIGO



Dr. Colleen Wilson-Hodge and NASA's Fermi Gamma-ray Burst Monitor team captured the gamma-rays from a collision of two neutron stars, shown here in an artist's rendering.

LIGO/Sonoma State University/A. Simonnet

weak when we factor in the distance to it, but it looked pretty ordinary in the GBM data. How many other events do we have like this in our data?"

Optical observers are working with GBM now to follow up other short gamma-ray bursts to see if they can see the same signature, as science probes whether all the gravitational wave mergers are weak like the one recorded and whether the extended emission still being observed in X-rays and radio will distinguish them.

In addition, observations of events in gamma-rays or other electromagnetic wavelengths along with gravitational waves provides more information about the systems, says Dr. Wilson-Hodge.

"We hope to see more neutron star mergers and other new types of events, like a merger of a neutron star and black hole, perhaps gravitational waves from a supernova that also produces a long gamma-ray burst, and maybe longer lived events like from magnetar giant flares."

Dr. Wilson-Hodge began with GBM well before launch, in the early 2000s, when she developed the GBM detector response software. The software characterizes the energy spectra of gamma-ray bursts and makes tables of count rates used to localize sources on the sky. Also before launch, she was involved in instrument acceptance testing, flight software testing and testing of the GBM instrument once mounted on the spacecraft.

After launch in 2008, her science focus was accreting pulsars and other transients, including the unexpected discovery in 2011 that the Crab nebula varied by 7 percent over two years, when most X- and gamma-ray astronomers thought the Crab was constant (Wilson-Hodge, C. A. et al. 2011, "When a standard candle flickers", ApJ, 727, L40).

"We hope to see more neutron star mergers and other new types of events, like a merger of a neutron star and black hole..."

"In addition to science, my leadership role on the team increased over time," she says. "I became a member of GBM committees that made science and operations decisions for the team."

Dr. Wilson-Hodge became acting principle investigator (PI) for GBM in December of 2015 and was named PI in June 2016.

"As PI, I make decisions about operations of our instrument; I make scientific decisions, like who gets to lead a particular investigation or paper; I resolve conflicts within the team and with outside teams; I report on behalf of the team to my management, to the Fermi Project Scientist and to the Fermi Users Group," she says.

"I tend to be a collaborative leader, so I often consult a subset of the team for input when I make decisions. Now my main job is to do whatever is needed so that my team can do the science, although I do still find a bit of time to do some science myself."

TECHNOLOGY

GRADY GASTON

New technologies offer 'HUGE OPPORTUNITIES,' says Gradkell Systems founder

Grady Gaston is always looking toward the next technological innovation, and he says technology today is a fertile field for new ideas.

"The new technologies – including programming languages, application development frameworks and mobile technology – that exist today provide huge opportunities for innovative minds to produce helpful tools that no one has thought of yet," says Gaston (B.S., Management; B.S. Finance, '85), who is owner and chief executive officer of Gradkell Systems Inc., a Huntsville technology company he founded. "I want our company to be on the cutting edge in both using such tools and even creating such tools."

One idea Gradkell Systems is prototyping now is a mobile app that takes care of all of the steps in filling out travel vouchers, eliminating the normally associated paper chase.

The company's innovations include the first use of smartcards in the federal government back in 1991. It pioneered the use of digital signatures in the government and today remains in the forefront of digital signature technology, currently serving 4 million Dept. of Defense civil, military and contractor staff.

"Our digital signature technology provides user authentication, data integrity and non-repudiation," says Gaston, a native of Athens, Ala., and an Athens High School graduate. "We digitally sign everything from software executables, to PDF documents, to tables and rows in databases. Often times, users are using Gradkell's digital signature technology without even being aware of it."

Besides the Dept. of Defense, the company has also provided digital signature technology for the Transportation Security Administration, the Dept. of Treasury, the U.S. Census Bureau, the U.S. State Dept., the State of Indiana and others.

"More impressive than our digital signature technology has been our involvement with the U.S. Army Corps of Engineers (USACE) Financial Management System and its Project Management System. We have been involved in the development and maintenance of these systems since their inception," Gaston says. The USACE is the largest construction agency in the world, with massive and unique accounting requirements.

"We have proudly helped the USACE achieve an unprecedented 11 years of consecutive Chief Financial Officers Act of 1990 compliance audit letters," Gaston says. "No other Dept. of Defense accounting system has achieved anything close. Last year, we won a single-award $75 million contract to continue the operations and maintenance of – and to modernize – the USACE Financial Management System."

He started Gradkell Systems in April 1990 after working for another contractor in the wake of a decision that the U.S. Army Corps of Engineers would begin contracting its software development. In 2006, Gaston bought out the other Gradkell Systems shareholders to become sole owner. It's important to be all-in when starting a business, he says.

"For the future entrepreneurs, your business will require a lot of your attention to the detriment of other interests in your life. Make sure the reward you seek from your business is worth the attention it requires," says Gaston. "Since it will be one of the biggest risks you'll take in life, you must be certain that it is what you want to do,

"Make sure the reward you seek from your business is worth the attention it requires."

"The City of Huntsville is one of the most conducive environments for high-tech companies, and UAH is a big reason for this by having provided the curriculum and prepared students for the city's high-tech environment."

certain there is a market for it and be passionate about doing it. You are willingly going into a den of lions. The reward can be great, but the struggle is not for the faint at heart."

Gaston has remained active at UAH post-graduation, serving as alumni president in 2006, as a former alumni board member and as an honorary member of the Board of Trustees for the Alabama School System, of which UAH is a part. He also served on a UAH presidential selection committee and is a 2002 Alumni of Achievement honoree.

"The City of Huntsville is one of the most conducive environments for high-tech companies, and UAH is a big reason for this by having provided the curriculum and prepared students for the city's high-tech environment," he says. "I'd like to thank April Harris, UAH's associate vice president for university events, for reaching out to me in the past and offering me the opportunity to stay involved with the university."

Gaston says being exposed to more than just his chosen career path is one of the most rewarding experiences he had at UAH.

"A student doesn't necessarily know exactly what they may have an affinity for without such exposure. I use lessons I learned at UAH on a daily basis, and not just lessons from my majors, even lessons I learned in my electives," he says. "To this day, I still quote some of my UAH professors. Also, some of my best and brightest employees are UAH graduates."

He urges current students to avoid temptations that might lead them off their path. "Avoid abusing alcohol and drugs. There is no bigger dream killer than this."

There's another nugget for current students in a story Gaston relates about a full-time job he had as a courier for Computer Science Corporation (CSC) while he was at UAH.

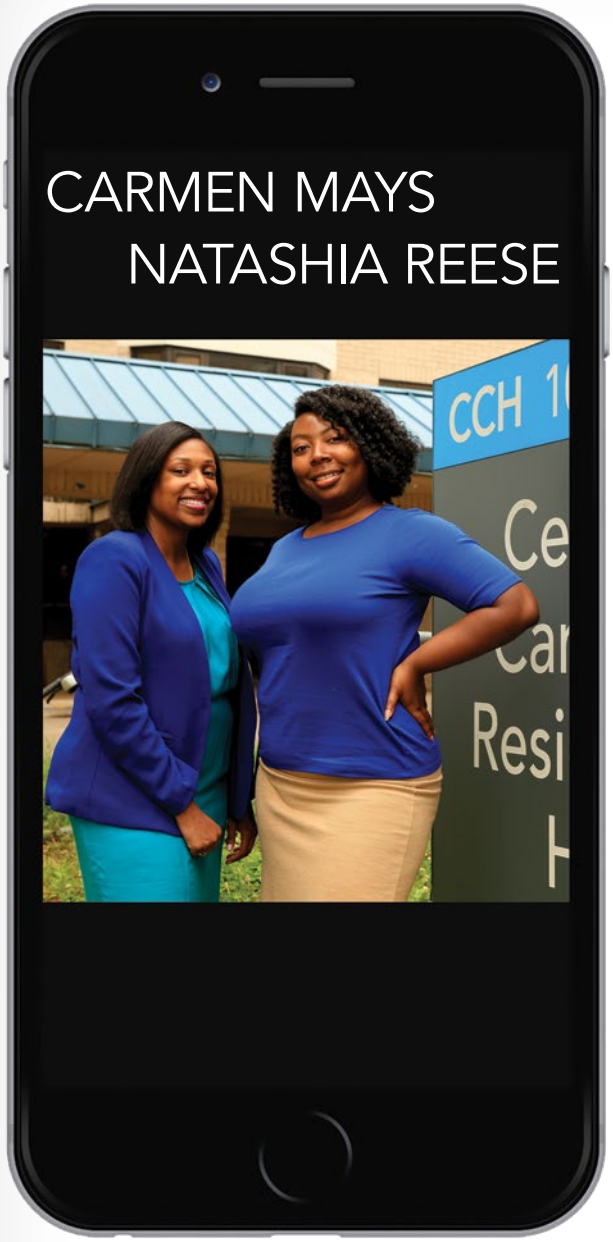
"One day I was hanging out in the computer room waiting for an assignment when a manager came in. He asked me, 'Where are the computer operators?' I told him that they had gone to lunch. He was furious. He said they were never supposed to all be gone at the same time, and that he had a job that needed to be run and people from headquarters were here waiting on it. I told him that I could run it. He asked, 'Aren't you the courier?' I said, 'Yes, but I've been watching them. I know how to do it.'

Gaston ran the job. The manager was very thankful and told Gaston if he ever needed anything to come see him.

"In less than two months I had wrecked the company car twice. They told me I couldn't be the courier anymore and they may have to let me go. I went to the manager that I helped before and asked him for help. He brought me onto his project as a computer programmer trainee."

At the time, Gaston was 18 years old and a UAH freshman.

"It would have been easy for me to stay in my comfort zone and avoid helping the manager. But that's not the kind of person I am and I encourage your readers to be empathetic to others, as well. Besides, every break I have received in my career came from people who I had gone out of my way to help in the past," Gaston says. "The proverb is true: If you help 10 people, and only one of them is there for you when you need help, it was worth it."



GROUP OF CAMPUS FRIENDS

CELEBRATE

HAVING EACH OTHER'S BACKS

FOR 15 YEARS

If the greatest gift in life is friendship, then the bounty has been awesome for a group of tight-knit UAH alumni who are celebrating 15 years of having each other's backs.

Every group of friends has its center of gravity, the people who really pull it together. For this one it's Carmen Mays and Natashia Reese, who are also celebrating 15 years of being best friends – so tight that they talk on the phone daily.

"You know what's crazy, it's like I tell Carmen all the time: when it's all said and done, with all of life's experiences we've shared and will share, I'm pretty sure we will forget more things than we will be able to remember," says Natashia (B.S., Biology, '07). "I mean, I met her at age 17, so in just a few more years, I will have known her longer than I haven't!"

Everything started when they showed up at UAH in 2003 as freshmen.

"At that particular time, there were only a handful of black people at UAH, so we all got to be around each other and get to know each other," says Carmen (B.A., Foreign Language and International Trade, '06). "Everybody was from Birmingham. Because we were all from the same hometown, we all eventually met each other at UAH very quickly. We were one degree of separation from each other. We ended up forming a pretty large friend group."

"Only a few of us actually had classes together, but somehow we still connected," says Natashia. "I had classes with who I like to call the third to Carmen and I's trio, our best friend Shanté Reevers, and she and Carmen were roommates in our dorm, and as a result, we all got to know each other."

Dormitory life was fertile ground for friendships.

"There were a couple of dorm rooms of guys who came from Birmingham. They all went to high school with Shanté, so

LASTING FRIENDSHIPS

we started hanging out with them, too," Natashia says. "We just all became friends. Even when we left the dorms and moved off campus, graduated and started our lives, we kept on celebrating birthdays, more graduations, important milestones and everything else as time went on. When we left those dorms everybody remained great friends. It's a blessing to have those type of friendships."

With hometown Birmingham as a nexus, it's been pretty easy to keep in touch. "Holidays, everyone comes home to see their parents and their family, and we reach out to get together," Carmen says. "Some of us are scattered out in different states and places, and when we can get together, we make a point to be together. We reach out to each other by phone or on social media and kind of keep up with what is going on in each other's lives and how we can support each other."

Over 15 years, they've cajoled, teased, lifted up and comforted each other through life's spectrum, each knowing the others will be there for them.

"It's very fluid and based on availability. There's no formality to it. It's always love, and if there is anything we can do for each other, we do that," Carmen says.

"We all may not talk all the time, but we do our best to stay connected even if it's just through another member of the group," Natashia says. "It's like, if a few weeks go by and I haven't heard from someone, I'll text them just to check, make sure all is well, and see what's going on. I'll then relay that information to the others."

Birthdays are important. When Natashia turned 25 while living in Florida, everyone came to Birmingham for her birthday party.

After learning Dominique Kennebrew's mother was diagnosed with breast cancer, some of the group decided to come to Birmingham to run in the Race for a Cure, and they have done so every year for seven years.

"To walk away and then 15 years later be friends with the same people I met while living in the dorms is a blessing," Natashia says. "We've seen each other through graduation and jobs, births and deaths, the good times and bad times – everything."

And as sometimes happens, romance blossomed between two friends, Andrea and Marcus Williams. Andrea went to high school with Shanté and also roomed with Shanté and Carmen in the dorm. Marcus stayed in the dorm room next door to them.

"That was the first marriage between two people we knew who claimed to just be friends," says Natashia. "She kept saying, 'we're just friends, we're just friends.' But we knew."

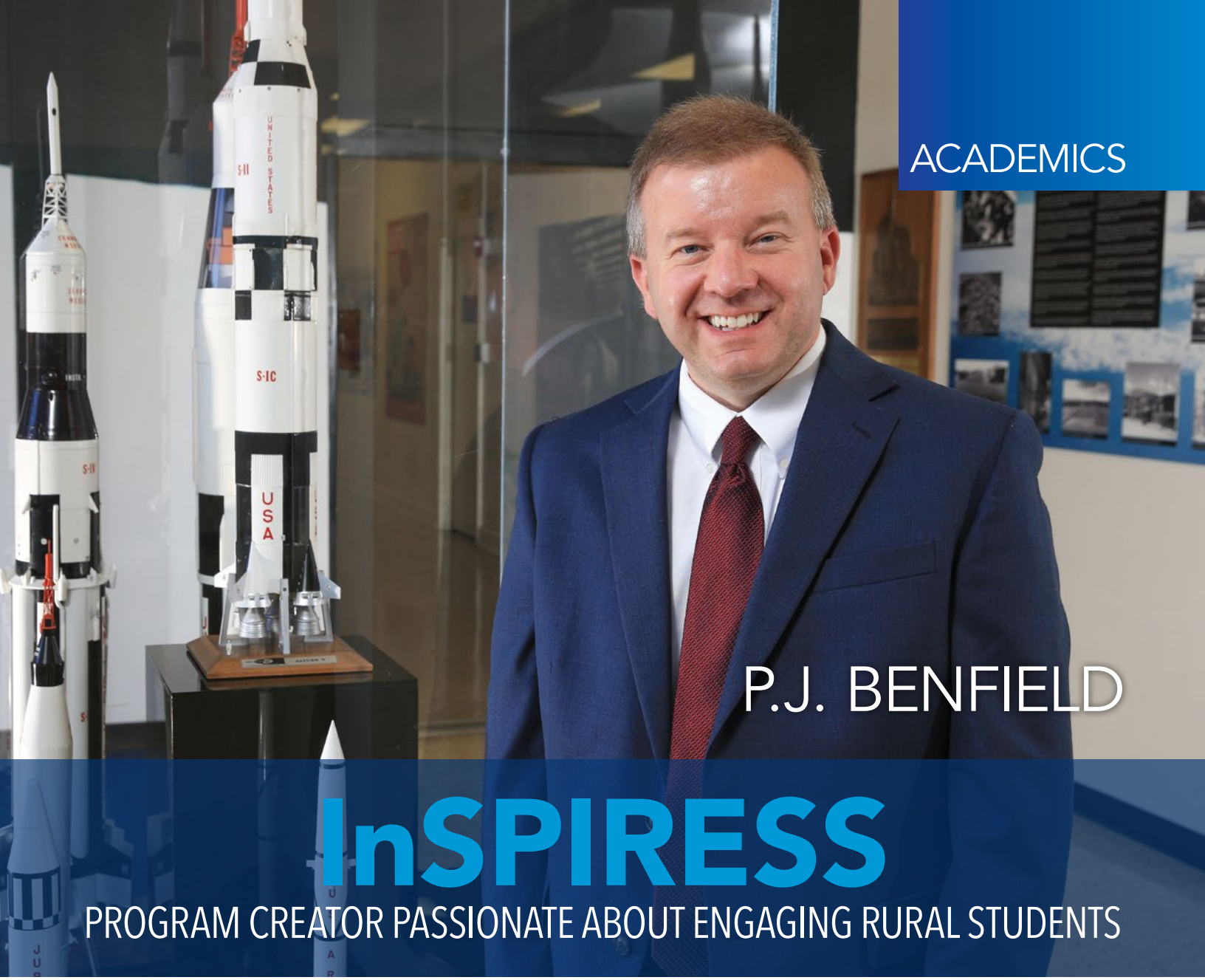
They encourage today's students to form these durable bonds that can last a lifetime.

"Just know that when you are in college, this is when you figure out who you are, and the friends you make there will probably be the friends you will have for the rest of your life," Natashia says.

"If you can find that one common thing that can ground you to each other," Carmen says, "that's what makes it work."

"Just know that when you are in college, this is when you figure out who you are, and the friends you make there will probably be the **friends** you will have **for** the rest of your **life**."

Natashia Reese
Carmen Mays
Shanté Reevers
Andrea Thomas Williams
Marcus Williams
Jamario Houston
Dominique Kennebrew
Michael Nix
Jason Traylor



P.J. BENFIELD

InSPIRESS

PROGRAM CREATOR PASSIONATE ABOUT ENGAGING RURAL STUDENTS

When P.J. Benfield was bussed onto the UAH campus as a Space Camp eighth grader to use a swimming pool for buoyancy training, it was the first time the Hildebrand, N.C., native had heard of The University of Alabama in Huntsville.

"I made up my mind right there, in eighth grade, that this was where I was going to attend," he says. Today, there are scores of Alabama high school students who are glad he hasn't left.

Dr. Benfield (BSE, Mechanical and Aerospace Engineering, '98; Master's, Industrial and Systems Engineering, '02; PhD, Industrial and Systems Engineering, '05) now teaches a senior design class and is a research engineer at the university's Systems Management and Production (SMAP) Center.

The creator of UAH's InSPIRESS program that reaches out to high school students statewide to interest them in science, technology, engineering and math (STEM), Dr. Benfield is on a mission to encourage rural high school students to reach higher academically and in their career choices. InSPIRESS stands for the Innovative System Project for the Increased Recruitment of Emerging STEM Students. It provides the opportunity for high school students to develop and design a scientific payload to be accommodated on a spacecraft designed by UAH undergraduate students.

"When I was growing up, in fifth grade the Challenger Space Shuttle blew up, and for me that was the beginning of my being here today. Space was where it was at for me, and so I originally wanted to work for NASA," Dr. Benfield says. "But everyone there in my rural community told me, 'You can't do that because of where you are from. Nobody from here does that.'

"My big passion is to go out to rural areas of Alabama and show kids that you too can do that," he says. "I get to

see kids who say, 'I can't do this,' and then four years later, they are in my senior design class and graduating."

He's also working hard to get more women interested in STEM.

"I am really excited about reaching out to young women," he says. "What's cool now is most of the project managers in high school physics classes in Alabama are female. They're about 70/30 female in physics classes in Alabama. My goal is to get those young ladies to realize, 'I can do this too – it's not just a guy thing.'"

A new approach to STEM that Dr. Benfield is developing is the EXCITE program, which will give high school students the opportunity to launch high altitude balloon missions. EXCITE stands for Exploring Collaborations that Inspire Transformations in Education.

"The kids think that is the coolest thing in the world," he says. "I want to be able to interact with every school system in the state of Alabama. We're continuing to go further and further south in the state and get them involved. I want to get the kids to realize there are possibilities out there for them. Get them excited and make them want to learn more."

Upon arrival at UAH, Dr. Benfield was pulled in by the considerable gravitational pull of Dr. Clark Hawk, then director of the Propulsion Research Center.

"That was my first job when I was a freshman, at the PRC under Dr. Hawk. He hired me. He was always great in showing you how to relate to people because he had that quality about him. I remember he'd always say, 'If you want to be a program, you have to act like a program.' And that's how I created InSPIRESS. I started it as a program, and from the very beginning I acted like it was a program, and so then everyone saw it as a program."

Dr. Hawk mentored Dr. Benfield through his time at UAH and beyond.

> "I get to see kids who say, 'I can't do this,' and then four years later, they are in my senior design class and graduating."

"Clark Hawk was the guy who I'd always go to for career advice, even when I didn't work for him anymore," he says.

As a student Dr. Benfield dove into the university, serving in the student government association (SGA), as student body president, as a student counselor and in other roles.

"I've been a lot of things here at UAH. I just loved everything about UAH. I was accepted and had full rides to universities around the country, but to everyone else I was just a number. To UAH, I was actually P.J.," he says.

"I'll never forget it, when I first walked in for freshman orientation, Ron Koger (then assistant vice president for enrollment services) saw me and said, 'Hey P.J.' Now my first name is Michael, and I will never forget that for my entire life, that he took the time to know me and greet me by the name I was called. That made me realize this was the place I wanted to be. Everything I ever wanted was here. It was the best place."

During his matriculation, Dr. Benfield says he found that "UAH does a really great job of teaching you how to think. Dr. Franz, who was president then, used to call us a challenging university when he was here. I think he was right. It teaches you how to become a thinker, and you need to know how to think. The problems students are going to face out in the future workforce have not even been thought of yet."

Dr. Benfield met his wife Gricelda, who also attended UAH, when she worked as a student at the University Center and he was the SGA chair of appropriations. They live in Madison with daughters Isabella, 13, and Alex, 4.

He encourages students to expand their opportunity horizons while at UAH.

"I started out wanting to be at NASA. I was even a NASA co-op student, but I ended up at UAH," Dr. Benfield says. "I don't think students should turn anything down. Keep your horizons open and see what the possibilities are. I got my PhD in May of 2005 and started at UAH in September of '05 as a full-time employee. Look at all the possibilities, and get involved so you can see what they are."

UAH'S Jasmine Moore IS A RECIPIENT OF UC RIVERSIDE FELLOWSHIP

Jasmine Moore's love of the magic and majesty of words began when she was in second grade. "My love for reading began when my teacher started reading the chapter book series, "The Bailey School Kids," to us," Moore says.

After hearing the stories of a group of elementary school friends who solved mysteries dealing with strange and bizarre adults, Moore started writing short ghost stories and poetry. "My love for fiction, especially speculative fiction, has grown ever since."

The Olympia Fields, Ill., native graduated from The University of Alabama in Huntsville (UAH) with a Master's of Arts degree in English. Moore received the English Department's award for Outstanding Thesis, titled "Sankofa: Framing Afrofuturistic Dialectical Utopias in N. K. Jemison's The Fifth Season, Nisi Shawl's Everfair, and Nnedi Okorafor's Binti."

Dr. Eric D. Smith, Moore's graduate advisor, says, "based on the strength" of an early draft of her thesis, the national honor student (4.0 GPA) was recently awarded the Eugene Cota-Robles Fellowship at The University of California, Riverside.

Moore's essay is based in part on the **Sankofa** bird, a symbol of Ghana (West Africa) and translates to "Go back and get it."

"Jasmine Moore is an exemplary thesis student: bright, ideally receptive to feedback, and highly self motivated. Most impressive is her ability to process new or unfamiliar concepts, assimilate them to her own intellectual project, and redeploy them in unexpected and insightful ways," says Smith, professor, of English and director of the UAH Humanities Center.

"Situated at the complex intersection of class, race and an international sociology of form, Jasmine's thesis poses bold and immediately relevant questions for our understanding of the recent efflorescence of global science fictions and the utopian possibilities they offer. Her thesis no doubt marks the first stride in what is sure to be a stellar scholarly career as she pursues her Ph.D. at The University of California, Riverside, the premier program in the country for the study of science fiction," Smith says.

Moore's essay is based in part on the Sankofa bird, a symbol of Ghana (West Africa) and translates to "Go back and get it." "It also comes from the proverb 'It is not wrong for you to go back for that which you have forgotten'. The works that I examine use the past and the present of the African-diaspora to confront thoughts of the future," she says.

Moore's thesis also explores novels and short stories written by black writers, which fall under the umbrella term of Afrofuturism, a branch of philosophy that explores the nature of art, science and technology. Afrofuturistic works include the Marvel Comics superhero the Black Panther. The Black Panther movie is one of the top three highest-grossing films of all time.

"As a subgenre of science fiction (SF), I argue that these stories combine SF and fantasy in order to navigate the tough experiences of history that descendants of Africa have undergone. I feel that this discussion is necessary for all readers since it contemplates the difficult discussions of race, sex, power, war, slavery, genocide, and the institutions that produce oppression.

"My interest is to see more work coming from black writers in the speculative fiction genre. This includes SF, fantasy, horror, and suspense," says Moore. "Ultimately, I believe that I will always be invested in the fantastic stories we tell ourselves and how that shapes our future, present, and, interestingly, past."

Moore learned about UAH from her mother and oldest brother while an undergraduate honor student at historic Howard University in Washington, D.C.

"I decided to start graduate work at UAH based on my family's recommendation. They enjoyed their experiences at the university. I was very happy to have enrolled in the fall of 2014," she says.

"My UAH academic experience has been both rigorous and rewarding," Moore says. "However, I have also experienced hardship throughout my journey. I lost my mother to breast cancer at the beginning of 2016, just as I was drafting my proposal for my thesis. Dealing with grief complicated my ability to write effectively, causing me to extend my coursework.

"Throughout this period, Dr. Eric Smith has been nothing but patient and kind," says Moore. "His expert subject knowledge has helped me to navigate the tough theoretical terrain that accompanies English thesis writing while allowing me the freedom to independently explore and examine those concepts."

Moore plans to teach and write. "I think they must go hand in hand in order to stay professionally relevant." She also believes that academic knowledge — especially the humanities, is under attack. "I recognize that the battle must be fought with more training and insight to tackle the difficult terrain of history, politics, identity and society. English and writing provide new ways of thinking about our experiences, so I would love to join current discussions."

She has definite opinions about the liberal arts, and the STEM (Science, Technology, Engineering and Mathematics) disciplines, too.

"I truly believe that all majors are worthy investments when it comes to intellectual production, for which a liberal arts degree is designed," Moore says. "I think that the prioritization of 'job placement' based on a capitalist model discounts some majors as useless, making the humanities the brunt of arguments about value. However, the humanities have always had an intersectional relationship with how we use technology, and how we navigate our socioeconomic reality. If the humanities fail, then most surely STEM will follow. Therefore, I do not see 'sticking' with liberal arts as a negotiation; it is my life's purpose to teach, question and explore."

Moore's UC Riverside fellowship covers tuition and provides a stipend as well as mentorship throughout all five years of the program.

"I truly believe that all majors are worthy investments when it comes to intellectual production, for which a liberal arts degree is designed."

ASHLEY ELLEDGE

ALUMNI CHAPTER FOUNDER'S CAMPUS VISIT WOWS HIM

When managers at Ashley Elledge's employer, nou Systems Inc. (nSI) approached him about starting an nSI UAH Alumni Chapter, he made a visit to campus to discuss the possibility.

That visit really lit a fire for him. It was the first time Tuscumbia native Elledge (B.S. Electrical Engineering, '00; M.S. Electrical Engineering, '07) had been back to campus since 2007.

"I was amazed to see the Greenway, the Charger Union Theater and just the overall growth of the campus," Elledge says. "I was a little jealous. I didn't realize there was a Dunkin' Donuts and all the cool stuff at the CU."

While visiting, the former UAH baseball player met with Mallie Hale, senior director of UAH Alumni Relations and executive director of the UAH Alumni Association, as well as the UAH Alumni Association team. On his return to nSI, he began work on the UAH Alumni Chapter there, which was recently approved.

"I played baseball at UAH from fall 1997 through spring 1999, and many of my memories are baseball-related," Elledge says. "It was a big part of my life back then. The 1998 season comes to mind as a great memory. We were the Gulf South Conference runners-up and came within one game of going to the Div. II World Series."

He also met his wife, the former Sara Redington, at UAH. She, too, is an alumnus (B.A. French and International Trade, '02; M.A. English, '05; P-12 English as a Second Language Teaching Certificate). The couple has three children, James, 11, Aaron, 8, and Kate, 5, and the family resides in the Harvest/Monrovia area of Huntsville.

The diversity at UAH provided a great experience that has helped him in his career, Elledge says.

"I realized not everyone is like me and we all must be able to respectfully get along in spite of our differences."

Bobby Pierce, UAH's first baseball coach, was a huge influence on him as a student athlete, Elledge says.

"I understood from him that the world doesn't care about you or your well-being, and we all must go the extra mile to influence others and we must take care of the things we can control," Elledge says.

Academically, he says he was inspired by Dr. Fat Ho, a professor of Electrical and Computer Engineering.

"He was my advisor in graduate school and I had him for a few undergraduate classes," Elledge says. "Great man."

And he's remained friends with David Keel, who was the baseball coach following Bobby Pierce.

"He and I remain great friends since his time as a graduate assistant when I was playing," Elledge says. "He's no longer in the baseball world, but he does work at nSI – as of a year ago – with me on the same project!"

At nSI, Elledge supports the Ballistic Missile Defense System (BMDS) Operational Test Agency, and helps provide independent operational assessments of the BMDS in support of the U.S. warfighter.

"It's great to provide support to such a critical mission. I often have to remind myself of that."

Elledge also enjoys cycling, and he and Sara are active at Madison Bible Church. He also coached the couple's sons in baseball over four or five seasons.

Involvement in the university is his way of giving back, and he enjoys the contact.

"It's good to interact with the students and provide guidance on things that caused me consternation when I was in their shoes," Elledge says.

Current students should always remember that potential employers do look at social media and be cautious about what gets posted there, he says.

"We usually take a look at potential interviewees' Twitter feeds, Facebook, etc.," he says. "We've found some interesting things on social media!"

Elledge says he tries to live one day at a time rather than worrying too much about what the future holds.

"While I try not to spend too much time worrying about the future, we do have to consider it in some cases, like planning for college, retirement, etc.," he says. "We do need to consider things that happen next, but I try not to consume myself with thinking about those things I sometimes can't control."

The future now contains an active nSI UAH Alumni Chapter because of Elledge's direct involvement and that special trip he made back to the UAH campus, where he found a lot of change and maybe a new affinity.

"Sara and I have even been to a Friday movie," he says. "Can't beat free popcorn and soda!"

"I was amazed to see the Greenway, the Charger Union Theater and just the overall growth of the campus."

– Ashley Elledge

"We welcome all of our alumni back to their alma mater," says Mallie Hale, senior director of UAH Alumni Relations and executive director of the UAH Alumni Association. "If alumni will contact us first, we will be happy to help them with their visit."

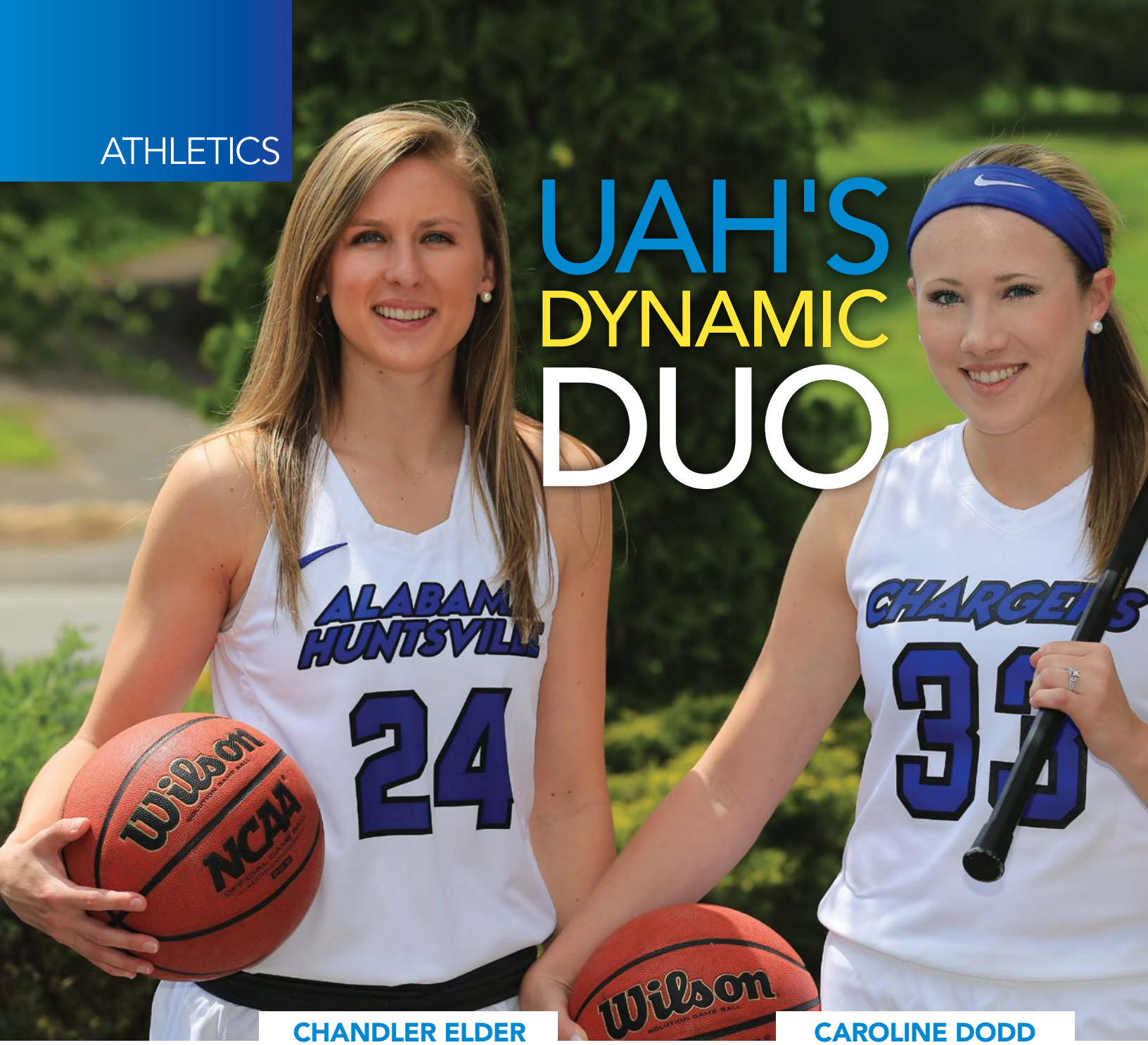
Your UAH Alumni Association can help with directions, connect you to campus resources including Salmon Library and University Fitness Center, assist with Wi-Fi access and even set up a permanent alumni email address to keep you connected with all of the latest alumni happenings and any events scheduled during your visit.

Contact the UAH Office of Alumni Relations at **alumni@uah.edu** or by calling 256-UAH-ALUM (824-2586).

ALUMNI ASSOCIATION
THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

www.uah.edu/alumni

UAH'S DYNAMIC DUO



CHANDLER ELDER **CAROLINE DODD**

Caroline Dodd and Chandler Elder, graduating seniors at The University of Alabama in Huntsville (UAH), made such an impression on faculty members, the College of Education named a perpetual award in honor of the students.

The UAH Dodd-Elder Physical Education Major of the Year Award will be presented annually to honor the college's first two Physical Education graduates.

"It takes a special person to embrace something new, but both Chandler and Caroline came into the Physical Education (PE) major as our first two declared majors ready for a new challenge," says Dr. Jeremy M. Elliott, assistant professor of Physical Education in the College of Education's Department (COED) of Kinesiology.

"In the time they've been in the COED they have represented the university as student athletes, set a high bar for the work they've turned in, developed relationships with students and cooperating teachers at their field placements, and fully embraced the curriculum to become the best PE teachers they can possibly be. It was because of the example they set that the award was named for them," says Elliott.

The students, commonly known as the "Dynamic Duo" in the COED, made the best of their athletic skills in high school to earn full ride basketball scholarships to attend the university.

While Dodd and Elder took different paths getting in the university's PE program the end result was the same: the two charted an ambitious academic path, and created a high-bar for future students to follow.

Caroline Dodd, a native of Nauvoo, Ala., graduated from Carbon Hill High School in 2014. The small town located in Walker County, Ala., has a population of less than 300 people.

"I knew early on in high school that playing ball was going to be my free ride to college, so I worked hard at basketball to get a scholarship," Dodd says. "I did not want my parents to carry the burden of having to pay for my education."

Dodd's high school coaches – aware of her talent on the basketball court and her studiousness as an honors student graduating with an advanced diploma – were on the lookout for scholarship opportunities.

Her original plan was to attend another university, but before she could set foot on campus, the entire coaching staff left the school to work at another institution.

"God had a different plan," Dodd says. One of her high school coaches knew Roy Heintz, former Lady Chargers basketball coach at UAH. "Two short weeks later, I received a full ride scholarship offer from Coach Heintz at UAH."

For Dodd's parents, the roughly 182-mile round trip to Huntsville was the equivalent of their daughter moving across country. "My mom definitely was the helicopter parent and she flew pretty low. My dad had a softer approach, but he expected just as much out of me."

For as long a she can remember Dodd has dreamed of merging a career as an educator with athletics.

After three years of playing basketball as a Lady Charger, Dodd says she felt spiritually compelled to make a change in her life. "I decided for the first time that I was going to be just a regular college student —no athletics."

Although she "didn't regret" saying goodbye to basketball, Dodd's "no athletics" vow didn't last very long. Within a few weeks she was persuaded by UAH athletics staff and coaches to try lacrosse.

"The first time I held a stick, I was worried. When I held a stick with a ball in it, I was wondering what I had gotten myself into," says Dodd. But within a few short months, with the help of Coach Gail Wallach and her lacrosse teammates, Dodd has pretty much mastered the sport. "I will always love basketball the most, but lacrosse runs a very close second."

Honors student Chandler Elder graduated from Bob Jones High School in 2014. The recipient of a full athletic scholarship and a partial academic award, Elder was well acquainted with the university.

"UAH is only about 20 minutes from Madison, so I grew up hearing about the university and my sister graduated from the College of Nursing," says Elder. Ultimately, I decided to attend UAH, because of the athletic program, the College of Engineering, and I was still close

to home so I could see my parents and siblings often."

Elder began her freshman year as a declared engineering major. "But I quickly changed academic programs after taking calculus for two weeks. I remember calling my mom and telling her I didn't want to be an engineer anymore and we both just laughed because it had been such a short time. I knew that whatever I was supposed to do, I would feel passion for it and I didn't have that feeling with engineering," Elder says.

She finished her basic course work at UAH as an undeclared major. Elder soon heard the university was starting a kinesiology program. "It immediately sparked an interest and I knew I was meant to do something within that field.

"I always loved the idea of being able to positively impact others, and after reflecting on the teachers that had such a strong impact on my life, I knew this was something I needed and wanted to do. My declared major is Kinesiology with a concentration in PE," says Elder.

From the moment the "Dynamic Duo" met they have been inseparable. Similar in looks Dodd and Elder were easily mistaken as sisters.

"In our junior year we had every class together, played basketball together, worked together, and lived together. People would always get our names mixed up or mistake us as sisters. Very rarely did you see one of us without the other one. Caroline helped me get through a lot and I am so glad I got to share these experiences with her," says Elder.

"A lot of people might go crazy if they spent that much time together, but I think it was a good balance for us," says Dodd. "The only time we stressed each other out was when one of us had completed an assignment, and the other one had not even started. It was still positive because it was a good motivator to get busy."

Elder and Dodd are grateful to the university, the college and their professors for a rewarding academic experience. "I have not only been taught very well, I have been invested in," says Elder. "My professors pushed me out of my comfort zone and had confidence in me when I didn't have confidence in myself."

"Each teacher molded me into a better educator and a better person," says Dodd.

Elder and Dodd agree Dr. Jeremy "the PE guru" Elliott played the larger part of shaping and challenging them as future educators, but give all COED professors, instructors and staff members accolades for setting student educational standards high and preparing them for their teaching journey.

"Dr. Monica Dillihunt, Dr. Hamsa Mahafza, Dr. Wolfram Verlaan, and Dr. Derrick Smith were all inspiring. My Kinesiology professors, Dr. Paul Whitehead, David Kyle, Liz Redding and certification officer, Chantaye Robinson-Jones, were great, too. From the very start it was evident that they all cared about the COED developing good teachers, but they also were very intentional about showing they cared about us. That's something every student wants and needs from a teacher, no matter how old we are," says Elder.

Both graduates say it is difficult to find words to explain how honored they are to receive the UAH Dodd-Elder Physical Education Major of the Year Award.

"Caroline and I both work very hard at what we do, no matter what it is. Getting publicly recognized for our efforts meant so much. And to have Dr. Elliot present the award made it even more special," says Elder.

Just as before their UAH journey started, Dodd and Elder will embark on different paths after graduation.

Dodd, who did most of her student teaching at Mount Carmel Elementary and Huntsville High, is completing an internship and planning a wedding for July.

She will pursue a master's degree at UAH in differentiated instruction with a concentration in Autism spectrum disorders. "My aunt has intellectual exceptionality and I have always had a heart for individuals who have special needs. On top of teaching and being a graduate student, I will play an additional year of lacrosse for the Chargers. Most people think I'm crazy, but I just love a challenge," says Dodd.

Elder has been student teaching all spring at Rainbow Elementary and Monrovia Middle schools.

"The hardest and most taxing project I completed was edTPA (method and practice of teaching test). It's a new program that the state of Alabama requires education students to complete and pass in order to receive their teaching certificate. I am in the process of applying for jobs and interviewing. I am open to go wherever. I am so excited for the journey that is to come. I have waited for what seems like forever for this time and now it's finally here. I can't wait!"

As a UAH alumnus/alumna, how can you **CHARGE ON**?

CONNECT...

with us! Update your information on our website so that we can stay in touch.

HIRE...

UAH alums. UAH alumni have access to Charger Path! Post and apply for jobs through this career management system.

ATTEND...

UAH events! Check out the online event calendar at UAH.EDU/EVENTS to see what's happening on campus.

RECRUIT...

new students. Do you know a high school student interested in attending UAH? Refer them online at UAH.EDU/REFER and they'll receive more information about the university!

GIVE...

back. Invest your time, talents, and treasures in your alma mater!

ENGAGE...

with UAH! Let us know how you'd like to get engaged with your UAH Alumni Association.

To connect with the UAH Alumni Association, contact 256.UAH.ALUM (824.2586) or **alumni@uah.edu**. Visit **uah.edu/alumni** for more information.

SOCIAL MEDIA

Check out our most popular social media posts from the last few months.

THE UNIVERSITY OF ALABAMA IN HUNTSVILLE

UAH
@UAHuntsville

UAH Alumni
@UAHAlumni

Follow

You may also like

UAH
@UAHuntsville

UAH Alumni
@UAHAlumni

UAH
@uahuntsville

If you're interested in having students shadow you/your company or mentoring a current Charger, check out your opportunities through both the MOE and MAC programs!

https://t.co/5qSc9Bb4lm

@UAHAlumni
UAH College of Nursing DNP graduate Heather Flores' project examines the problem of food insecurity in Alabama households. Learn more about what this alumna is doing to impact our community! #OnceACharger #AlwaysACharger

@UAHAlumni
The Liberty men's basketball coaching staff has rounded out as Ritchie McKay announced the hiring of assistant coach Derek Johnston - UAH alumnus & previous assistant coach under UAH's head coach Lennie Acuff. Congrats Derek! #OnceACharger #AlwaysACharger

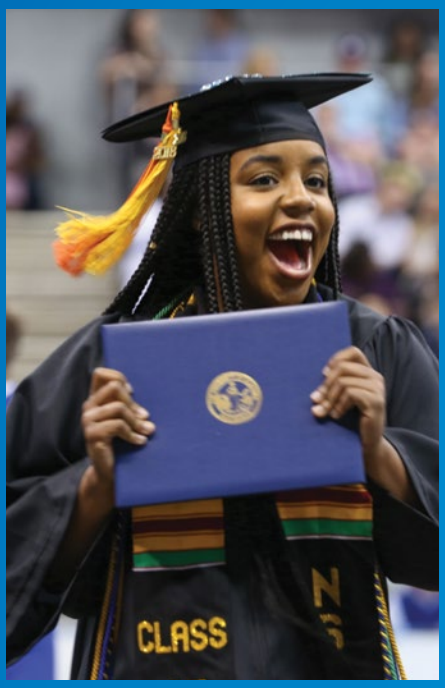
@UAHAlumni
Congratulations to UAH's College of Nursing Spring 2018 graduates! It was a joy watching your pinning ceremony yesterday, and we are so proud of your accomplishments! #OnceACharger #AlwaysACharger

@UAHuntsville
Congratulations to UAH alumnus & @SolstarOFFICIAL owner & CEO M. Brian Barnett on the company's first Tweet from aboard Jeff Bezos' @blueorigin New Shepard crew capsule flight Sunday! Solstar is gearing up to be the first privately funded Wi-Fi and Internet service in space. https://on.uah.edu/2HOgm9v

@UAHuntsville
"It's great to see so many of our alumni being recognized for their successful business endeavors and for the collaborations they have created in our community." @UAHAlumni **Four alumni businesses picked as Best Places to Work** https://on.uah.edu/2HNwdW8

@UAHuntsville
"Without Coach Mike Corbett's support while I was with UAH, I know this dream couldn't have been possible. It's awesome to be part of such a proud tradition when it comes to UAH and the international competition." **UAH alumnus and former hockey director with U.S. Olympic women's hockey team** https://on.uah.edu/2HTC9wV

The Class of 2018 celebrated UAH commencement on May 6, 2018



THE UNIVERSITY OF
ALABAMA IN HUNTSVILLE

301 Sparkman Drive
Huntsville, Alabama 35899

UAH.EDU

Nonprofit Org.
U.S. Postage
PAID
Huntsville, AL
35899
Permit No. 283