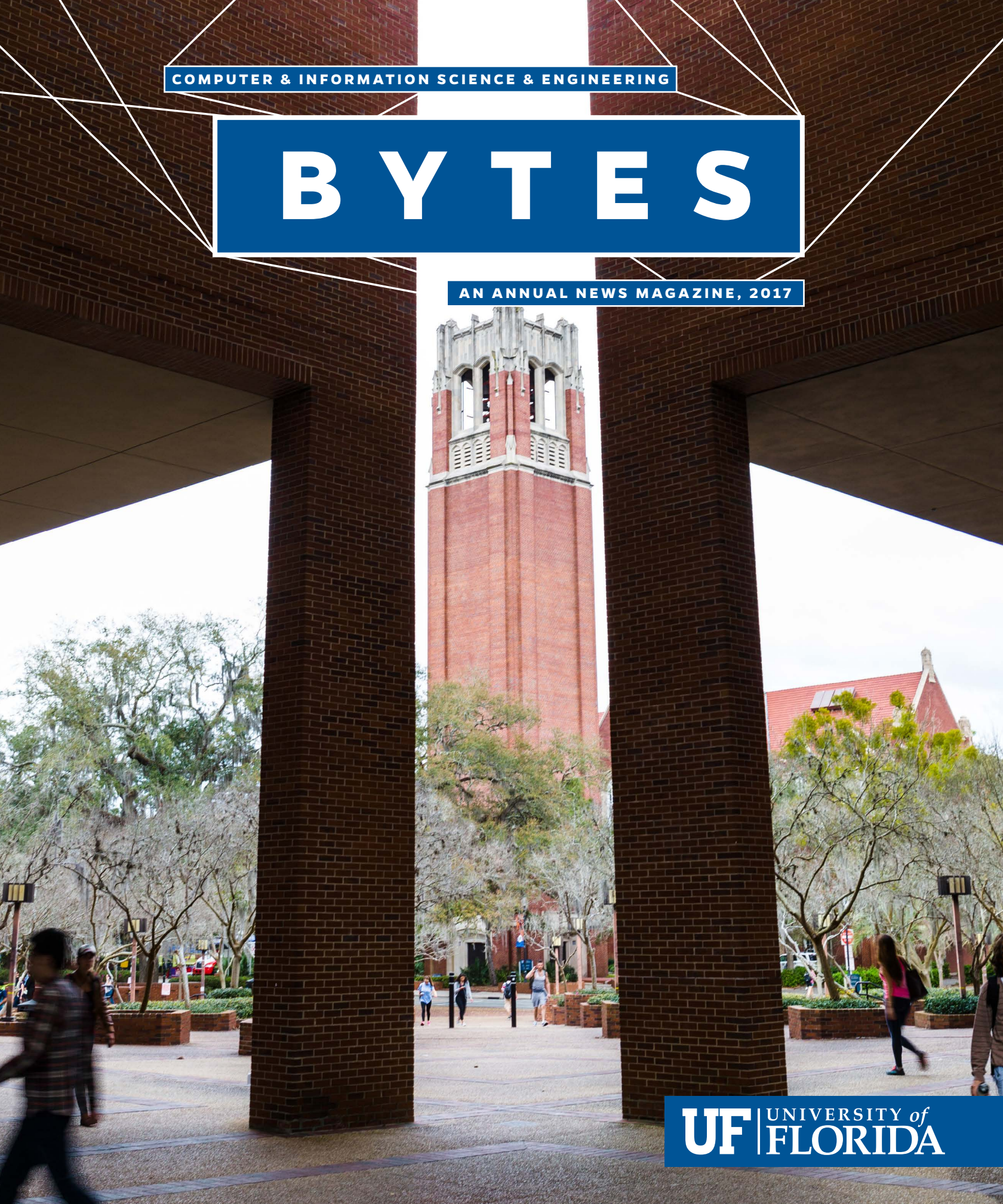


COMPUTER & INFORMATION SCIENCE & ENGINEERING

BYTES

AN ANNUAL NEWS MAGAZINE, 2017



UF UNIVERSITY of FLORIDA

Safety first, right? That's how most of us live our lives. That's definitely how we set priorities in our department. Because whenever we turn on the news we see new threats with the potential to damage individuals and nations. At the UF Department of Computer & Information Science & Engineering, we're paying attention. We're playing hardball with some of the world's biggest security challenges.

When hackers first started using ransomware to encrypt computer files and demand money in exchange for their return, our cybersecurity team leaned in. This malware had the potential to destroy lives and cripple the global economy. Working in state-of-the-art labs at the Florida Institute for Cybersecurity (FICS) Research at UF, they developed CryptoDrop. This software - created by professors Patrick Traynor and Kevin Butler, and FICS Research Ph.D. student Nolen Scaife - is designed to prevent ransomware from completing its task of stealing documents.

Meanwhile, our Human-Centered Computing team took an outside-the-box approach to curbing contentious traffic stops

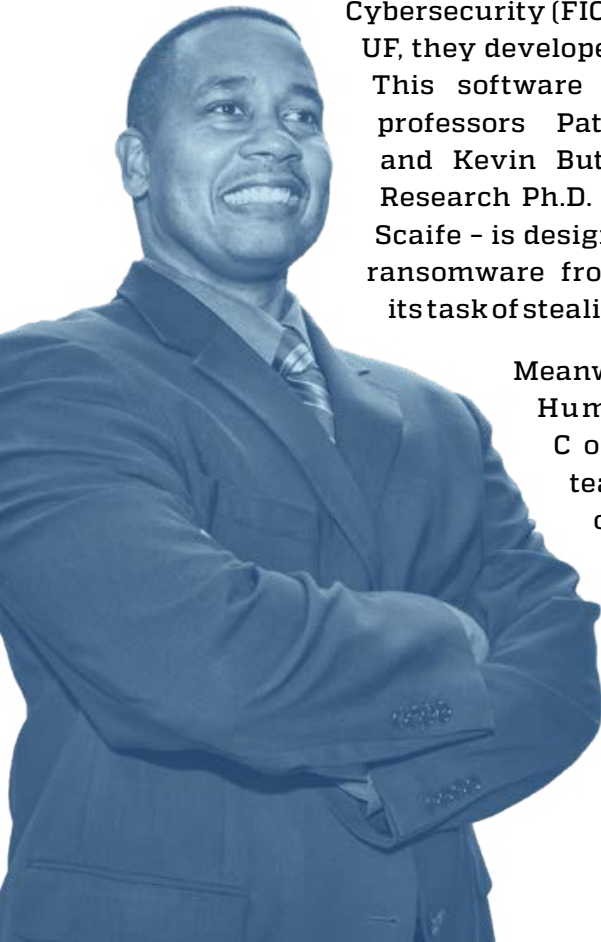
by developing an app that keeps everyone in their vehicles. Our team of students - DeKita Moon, Isabel Laurenceau, Michelle Emamdie, and Jessica Jones - hopes the Virtual Traffic Stop app will start a conversation about the need to increase safety for civilians and police officers during their interactions.

Coming up with innovative ideas and solutions requires listening to, learning from, and collaborating with different voices and perspectives. Our department is home to an incredibly diverse and talented student body and faculty. Among computer science departments nationwide, we have the highest number of women faculty and employ twice the national average of black faculty members. And we're growing. Over the past four years, we've hired 12 tenure-track faculty - including two IEEE Senior Members, four NSF Career Award winners, an AAAS Fellow, and a Sloan Research Fellow - all part of the university's Preeminence initiative. The state invests in us because we are committed to serving you.

Here's to a safer world for everyone.



Juan E. Gilbert, Ph.D.
**THE BANKS FAMILY PREEMINENCE
 ENDOWED PROFESSOR
 CHAIR, DEPARTMENT OF
 COMPUTER & INFORMATION
 SCIENCE & ENGINEERING**



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UF Herbert Wertheim
College of Engineering
*Department of Computer & Information
Science & Engineering*
UNIVERSITY OF FLORIDA



BY THE NUMBERS

CISE'S FACULTY AND STUDENTS ARE AMONG THE MOST DIVERSE IN COMPUTER SCIENCE PROGRAMS NATIONWIDE.

NO. 1

CISE ranks No. 1 among computer science departments at public universities in the number of black students enrolled in the Ph.D. program. ([ASEE](#))

22%

Of the 49 women enrolled in Ph.D. programs in computer science departments nationwide, 22 percent are enrolled at CISE. ([2016 Taulbee Survey](#))

2X

CISE employs twice the national average of black faculty members among the nation's computer science programs. ([ASEE](#))

NO. 1

CISE has the highest number of women faculty among computer science departments nationwide. ([ASEE](#))

NEARLY

11%

Based on 2016 enrollment data compiled by the department, there are 148 students enrolled in the CISE Ph.D. program. Nearly 11 percent of those students are black.

TOP

30

CISE's computer engineering Ph.D. program ranks 29th nationwide. ([US News & World Report](#))



Patrick Traynor was named the John H. and Mary Lou Dasburg Preeminent Chair in Engineering.

College Names Expert in Cybersecurity Preeminent Chair In Engineering

The Herbert Wertheim College of Engineering at UF has named [Patrick Traynor](#) the John H. and Mary Lou Dasburg Preeminent Chair in Engineering.

Traynor came to CISE in 2014 as an associate professor focusing on security and networks.

John and Mary Lou Dasburg established their endowment in 2013 to support the “hiring of a faculty member whose research and teaching endeavors address prime focus areas in engineering and technology.”

John Dasburg earned a bachelor’s degree in industrial engineering from UF in 1966, a master’s in business administration in 1970 and his juris doctorate in 1970. Mary Lou Dasburg is a graduate of Loyola University in New Orleans, the University of North

Florida, and the UF Levin College of Law.

Featured on C-SPAN, Forbes and The Wall Street Journal, Traynor’s research focuses on the security of mobile systems. Traynor is the co-director of the Florida Institute for Cybersecurity Research at UF, which focuses on the advancement of cybersecurity for collaboration.

“From the moment he set foot on our campus Patrick has taken a strong leadership role,” said Cammy R. Abernathy, dean of the Herbert Wertheim College of Engineering. “He collaborates extensively with our cybersecurity team, takes on enormous research challenges, and engages the public with practical solutions that can have a direct and positive impact on their lives. I’m excited to see

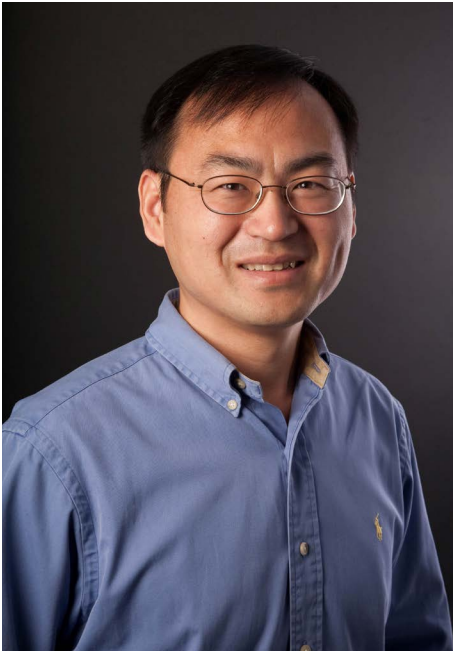
what he will accomplish with this endowment.”

Traynor majored in computer science and engineering at Pennsylvania State University, earning his master’s degree in May 2004 and his Ph.D. in May 2008. He was named a Sloan Research Fellow in 2014 and received a CAREER Award from the National Science Foundation in 2010.

“I am absolutely humbled by this recognition by both the Dasburg family and the University of Florida,” he said. “Cybersecurity impacts everything from healthcare and defense to the humanities and freedom of expression. UF is committed to addressing what is one of the greatest challenges of the 21st century.”

by Allison Logan and Jen Ambrose

Professor Honored as ACM Distinguished Scientist



[Shigang Chen](#), a CISE professor, has been honored as a Distinguished Scientist by the Association for Computing Machinery (ACM). Chen was recognized for his individual contributions to advancing the field of computing. He was 1 of 32 distinguished scientists named.

Chen came to UF as an assistant professor in 2002. He was promoted to associate professor in 2008 and to professor in 2013. His research focuses on big network data, cybersecurity, RFID systems, cloud computing and cyber-physical transportation systems.

“The ACM Distinguished Scientist designation is a tremendous honor for Dr. Chen, the CISE department, the Herbert Wertheim College of

Engineering and the University of Florida,” said Juan Gilbert, The Banks Family Preeminence Endowed Professor and CISE chair. “ACM distinguished membership represents the top 10 percent of the ACM. These honors and awards recognize the excellence we are cultivating in the CISE department.”

Chen majored in computer science at University of Illinois at Urbana-Champaign, earning his master’s degree in 1996 and his Ph.D. in 1999. He was named a Fellow of the Institute of Electrical and Electronics Engineers in 2016 and received the National Science Foundation’s Faculty Early Career Development Program Award in 2007.

by Allison Logan

TRAYNOR NAMED A CFI FELLOW

Patrick Traynor has been named a Fellow by the Center for Financial Inclusion (CFI) and Accion. Traynor is the co-director of the Florida Institute for Cybersecurity Research at UF, which focuses on the advancement of cybersecurity for collaboration.

The purpose of the CFI Fellows Program is to encourage independent researchers and analysts to examine some of the most important challenges in financial inclusion.

by Allison Logan

New Faculty Hires



Christina Boucher

ASSISTANT PROFESSOR
FOCUS: BIOINFORMATICS

[Christina Boucher](#) develops computational solutions that address biological problems impacting society. Boucher worked at Colorado State University before coming to the University of Florida. Previously, she was a post-doctoral researcher at the University of California, San Diego.

“I am hoping to generate and analyze data that will help draw on the direct relationships between UF’s medical and veterinary schools.” — Boucher

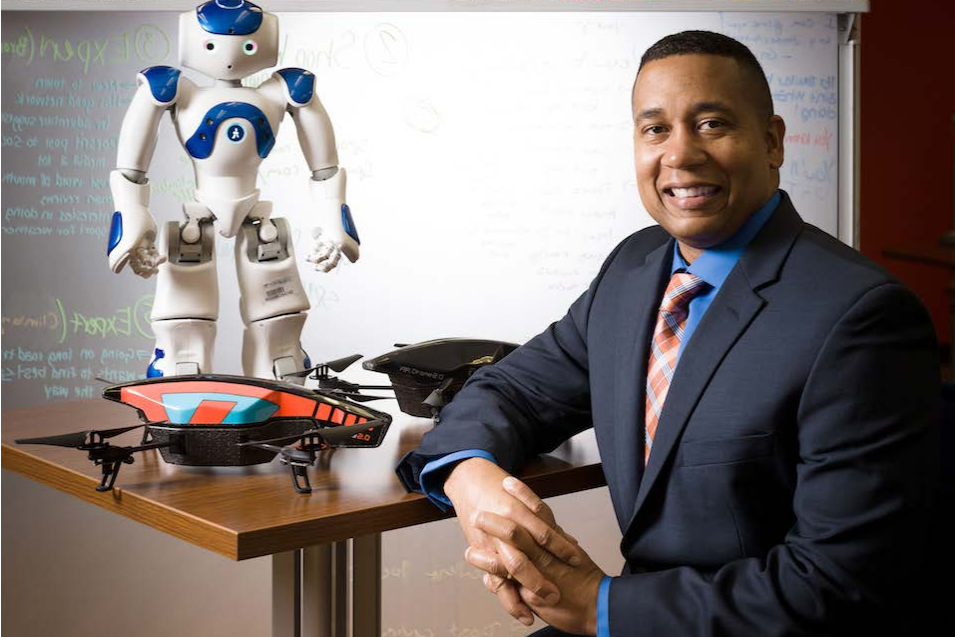


Jaime Ruiz

ASSISTANT PROFESSOR
FOCUS: HUMAN-COMPUTER INTERACTION

Before coming to the University of Florida, [Jaime Ruiz](#) worked as an assistant professor in the computer science department at Colorado State University. Ruiz’s research focuses on gestural interaction, mobile interaction, gesture recognition, usable bioinformatics and computer-supported cooperative work.

“I’m excited about this opportunity to work with new colleagues to make UF and the department a global leader in human-centered computing.” — Ruiz



Juan Gilbert, The Banks Family Preeminence Endowed Professor and the CISE chair. (UF Photography)

NAI Names Chair Of CISE a Fellow

Juan Gilbert, The Banks Family Preeminence Endowed Professor and CISE chair, has been elected by the National Academy of Inventors (NAI) to be an NAI Fellow.

Gilbert is a human-centered computing expert, hired in 2014 as a professor and associate chair of research under the Preeminence Initiative.

Gilbert gained recognition when the electronic voting interface he created became the new standard for universal accessibility in elections after successful application in New Hampshire, Wisconsin and Oregon. Known

as Prime III, it allows people with disabilities to cast their votes on the same system as everyone else.

Election to NAI Fellow status is a major professional distinction accorded to academic inventors who have demonstrated a prolific spirit of innovation in creating or facilitating outstanding inventions that have made a tangible impact on quality of life, economic development and the welfare of society.

Gilbert was inducted as an NAI fellow on April 6, 2017, at the NAI's Sixth Annual Conference.

by Allison Logan

BITS & BYTES

Jorg Peters, a CISE professor, and Meera Sitharam, a CISE associate professor, received a \$1.2 million grant from the Defense Advanced Research Projects Agency (DARPA) to revolutionize geometric design with material micro- and nano-structure.

The UF Research Foundation named Shigang Chen, a CISE professor, a UF Research Foundation Professor for 2017-2020.

Sitharam and Mavis Agbandje-McKenna, a professor in the UF Department of Biochemistry and Molecular Biology, were awarded \$799,990 of a \$1.13 million grant funded by the National Science Foundation. The project, "Collaborative Research: Geometric Elucidation of Supramolecular Assembly and Allostery with Experimental Validation," is a collaboration with Carnegie Mellon University.

by Allison Logan

Professor Receives the IEEE Technical Achievement Award

[Baba Vemuri](#), a CISE professor, has received the 2017 IEEE Computer Society Technical Achievement Award. Vemuri is 1 of 4 recipients of this year's award.

"Just as for all researchers, it is also satisfying for me to be recognized by my peer community and this provides the necessary impetus to forge forward with my research program," Vemuri said.

Vemuri is the director of the laboratory for Computer Vision, Graphics and Medical Imaging (CVGMI) at UF which focuses on researching key disciplines that support these areas. He joined CISE in 1987 after receiving his Ph.D. in electrical and computer engineering from the University of Texas at Austin.

His research interests include medical image computing, computer vision, machine learning, information geometry and applied mathematics. For the last several years, his research has focused on information geometric methods.

Vemuri received the National Science Foundation Research Initiation Award in 1988. He has received several best paper awards at various international conferences and is a fellow of the Institute of Electrical and Electronics Engineers and Association for Computing Machinery.

by Allison Logan



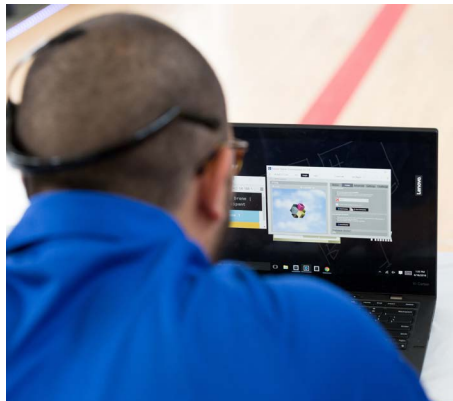
CISE Research Team Hosts Second Annual Brain-Drone Race

Some engineers are thinking about what humans can do with their brains. A team of students at UF, with the help of Juan Gilbert, The Banks Family Preeminence Endowed Professor and CISE chair, are bringing those ideas to life by controlling drones with their brains.

Efforts by Gilbert and his team took flight on April 15 when the group hosted the second annual Brain-Drone Race. About 40 people attended the event at the Florida Gymnasium at UF.

Ivens Applrys, the communication lead for the project, was part of the team that hosted this year's race. A total of 16 participants came to compete.

After recording the best times from simulations done prior to race day, the team selected the racers for the tournament.



A total of 16 people competed in this year's Brain-Drone Race.

CISE research students mounted black helmet-like devices on each participant. The racers had the ability to control a drone using the apparatus, which recorded electrical signals using brain-computer interface (BCI) technology.

Prizes for the winners included Beats by Dre headphones, a \$50 Amazon gift card, an Apple

watch, and the official Brain-Drone Race trophy, which was created from one of the 3-D printing labs at UF.

The first-place winner was Mahdi Moqri, a Ph.D. student studying information systems. The second-place winner was Megan Mackool, a third-year electrical engineering major. The third-place winner was Anthony Colas, a recent UF computer engineering alumnus who studied.

Moqri won the trophy and chose the watch. Mackool went home with the headphones. When asked if the races were easy for him, Moqri said it was not.

"There's a learning curve," he said. "You really have to know how to think about your thought patterns."

by Brian Dusape



Researchers Develop Way To Stop Ransomware

Ransomware - what hackers use to encrypt your computer files and demand money in exchange for freeing those contents - is an exploding global problem with few solutions, but a team of UF researchers says it has developed a way to stop Ransomware dead in its tracks.

The answer, they say, lies not in keeping ransomware out of a computer but rather in confronting it once it's there and letting it lock up a few files before clamping down.

"Our system is more of an early warning system. It doesn't prevent the ransomware from starting ... it prevents the ransomware from completing its task ... so you lose only a couple of pictures or a couple

of documents rather than everything that's on your hard drive, and it relieves you of the burden of having to pay the ransom," said Nolen Scaife, a UF doctoral student.

Scaife is part of the team that has come up with the ransomware solution, which it calls [CryptoDrop](#).

Ransomware attacks are one of the most urgent problems in the digital world. Attackers are typically shadowy figures from abroad lurking on the Dark Web. Victims include individuals as well as governments, industry, health care providers, educational institutions and financial entities.

Attacks most often show up in

the form of an email that appears to be from someone familiar. The recipient clicks on a link in that message and unknowingly unleashes malware that encrypts his or her data. The next thing to appear is a demand for ransom.

"It's an incredibly easy way to monetize a bad use of software," said Patrick Traynor, an associate professor at CISE and co-director of the Florida Institute for Cybersecurity Research. He and Scaife worked together on developing CryptoDrop.

Antivirus software is successful at stopping attacks when it recognizes ransomware malware, but therein lies the problem.

"These attacks are tailored and unique every time they get installed on someone's system," Scaife said.

Scaife, Traynor, and colleagues Kevin Butler at UF and Henry Carter at Villanova University lay out the solution in a paper accepted for publication at the IEEE International Conference on Distributed Computing Systems.

"We ran our detector against several hundred ransomware samples that were live," Scaife said, "and in those cases it detected 100 percent of those malware samples."

by Steve Orlando



Juan Gilbert, right, and Jerlando F. L. Jackson. (Hannah Pietrick/UF Photography)

University Scholars Team Up To Diversify STEM

The University of Florida and the University of Wisconsin-Madison may have faced off in a recent NCAA tournament, but when it comes to recruiting, the two schools are on the same team.

Juan Gilbert, The Banks Family Preeminence Endowed Professor and CISE chair, and Jerlando F. L. Jackson, Vilas Distinguished Professor of Higher Education at UW-Madison, have created a National Science Foundation pilot program to help recruit and support African-American and Latino graduate students in science, technology, engineering and mathematics.

The Consortium of Minority Doctoral Scholars will analyze three organizations' efforts to recruit, retain and mentor underrepresented students in STEM. The partnership was among the first efforts funded through NSF INCLUDES, an initiative to make the United States more competitive in science and engineering by improving access to STEM careers.

"We live in a globally competitive market," Gilbert

said. "China has a billion people, and the U.S. has 300 million. From a quantity perspective, we're at a severe disadvantage. But quality counts more than quantity. We need to diversify our workforce to get better ideas."

The consortium will create a portal that incorporates data from the Southern Regional Education Board's Doctoral Scholars Program, GEM Fellowships and McKnight Doctoral Fellowships.

"This will be among one of the first opportunities for longitudinal understanding of education and career pathways for African-Americans and Latinos in engineering and computer science," Jackson said.

For Gilbert and Jackson, the consortium is the latest effort in a 12-year collaboration that has generated up to 75 percent of research published on African-Americans in computing since the 1990s. They also collaborate on the Institute for African-American Mentoring in Computing Sciences.

by Alisson Clark

Career Development Workshop

Twice a year, CISE holds an event called the [Career Development Workshop \(CDW\)](#) where companies meet with undergraduate students, graduate students, and alumni to recruit for internships, part-time and full-time positions. CDW is the only recruiting fair designed for all UF computer science and computer engineering students, regardless of major or college.

CDW continues to be the most important event for the department. In Fall 2016, 28 companies attended, including ExxonMobil, Microsoft, the National Security Agency, Intel, and Citi, among others. In Spring 2017, 22 companies attended, including Gallup, General Electric, and Infinite Energy, among others.

by Allison Logan



Codeathon Brings Computer Science To Students

A Codeathon on April 15 hosted by UF-TYPE brought students from Gainesville-area middle and high schools together to spend the day coding.

About 40 students attended the event and participated in several coding-related activities ranging from workshops to a special-made escape room for the students to solve.



Codeathon attendees.

“We hope that this experience helped students get excited about programming and learning to code,” said Annie Luc, a UF-TYPE officer.

Thanks to recent funding UF-TYPE received from Google igniteCS, the group was able to raffle off several prizes, including an Amazon Echo Dot, an Amazon Fire Tablet, a 3-D doodle pen, a Bluetooth speaker and a Makey Makey.

About 10 student volunteers from CISE attended, along with the group’s adviser, Rong Zhang. Luc said the group hopes to hold this event annually.

by Allison Logan



Shaundra Daily talks with a visiting group of middle-school-aged girls.

Talking Women in STEM With Tech Sassy Girlz

About 50 middle-school-aged girls spent a day at UF learning about computer science during the Fall 2016 semester.

After a hands-on lesson in coding and animation the girls took a tour of the Human-Experience Research Lab at CISE. Kara Gundersen, a CISE Ph.D. student, spoke about an augmented reality project she worked on to showcase the flagship engineering building, the Herbert Wertheim Laboratory for Engineering Excellence.

During lunch, Shaundra Daily, a CISE associate professor and director of the digital arts and sciences program, spoke to the girls about emotions, body language and facial expressions, and how those relate to human-centered computing.

Daily also talked about balance in her life and how over the span of 13 years she was able to get a bachelor’s degree, two master’s degrees, her Ph.D., have two children and work simultaneously.

“Don’t let anybody tell you that you have to take a certain path in life just because it’s already there,” Daily said.

While women and minorities are still underrepresented in STEM, CISE is leading efforts to reverse that trend. According to a 2016 survey, there are 49 black female computer science Ph.D. students nationwide. Twenty-two percent of those women are at CISE.

The girls’ visit was coordinated through the Herbert Wertheim College of Engineering’s Gator Outreach program and Tech Sassy Girlz, the signature outreach program of the Florida-based nonprofit Collegiate Pathways.

“We are really excited to be here,” said Laine Powell, founder of Collegiate Pathways. “We are grateful for the opportunity to partner with the University of Florida and the Computer & Information Science & Engineering department to introduce our girls to computer engineering.”

by Allison Logan

Student Receives Outstanding International Student Award

Rasha Elhesha, a CISE Ph.D. candidate, received the Outstanding International Student Award for her exemplary academic achievement and involvement at UF. Elhesha, an international student from Egypt, was 1 of 15 students from the Herbert Wertheim College of Engineering to receive the award.

After graduating with her bachelor's in computer and systems engineering from Alexandria University in Egypt, Elhesha worked as a software engineer for about a year. She then decided to further her education, and narrowed in on CISE. In August 2014, she enrolled at UF with



Rasha Elhesha with her husband & daughter at the award ceremony.

a focus in bioinformatics, a discipline that analyzes large amounts of complex biological data.

Elhesha said winning UF's

Outstanding International Student Award means that she is on the right track and that her work with bioinformatics professor Tamer Kahveci is appreciated.

She said she is grateful for Kahveci's support as she moves through her Ph.D. program.

"I am eternally grateful for his tireless efforts to teach me everything and guide me through my research," she said. "He inspired me to ask the right questions and seek answers. He is really a wonderful, kind, understanding and caring supervisor and person."

by Allison Logan



Student Named Co-Runner-Up For IEEE Student Research Award

Farimah Farahmandi, a CISE Ph.D. candidate, was named a co-runner-up for an award from the Institute of Electrical and Electronics Engineers (IEEE).

The System Validation and Debug Technology Committee Student Research Award is given in recognition of an outstanding researcher in the field of system validation and debug.

Farahmandi won for her project, "Automated Validation Techniques Using Formal Methods."

The goal of her project is to address challenges in post-silicon validation.

"I am very honored and humbled to receive this recognition. It means that I am working on the correct path, and it motivates me to keep working hard," Farahmandi said. "It also raises some awareness about my research."

Farahmandi is a research assistant in the Embedded Systems Lab under the supervision of Prabhat Mishra, director of the lab.

by Allison Logan



The 2017-2018 members of the UF-TYPE Initiative.

UF-TYPE Receives Google igniteCS Funding

UF-TYPE, a student-run organization, has been awarded funding from Google's igniteCS.

UF-TYPE (Teaching Youth Programming Essentials) is an outreach program of UF's Women in Computer Science and Engineering (WiCSE).

"Winning this funding means a lot to this group, because it will allow us to increase our impact on the high schools we are currently helping," said Annie Luc, a UF-TYPE officer.

The overall goal of UF-TYPE is to encourage people to learn programming and be interested in computer science. As part of that goal, the group has developed a curriculum to formally teach students coding principles. UF-TYPE has programs, which are held after school for about two hours, at four high schools in Gainesville, Fla.: Eastside High School, PK Yonge, F.W. Buchholz

High School and Gainesville High School.

UF-TYPE is geared toward all students, but the group tries to encourage women and underrepresented groups to be a part of the club. The team only works with high schools, but hopes to expand to middle schools and other high schools in the future.

Luc said the group wants to "purchase coding robots for the students so that they can see the physical impact of programming." Luc hopes the group will be able to use the funding for other schools.

The idea behind igniteCS is that it "provides funding and resources for groups of college and university students to make a difference in their local communities through CS mentorship."

by Allison Logan

Two Students Awarded UFII Fellowship

Xiang Li and Monamie Banerjee were awarded the UF Informatics Institute (UFII) Graduate Student Fellowship for 2017. UFII offers six or seven fellowships yearly.

Li is a CISE Ph.D. student working in the Optima Network Science lab under the supervision of professor My Thai. Li's research interests include online social networks, network vulnerability, algorithms and security in Smart Grid.

Li's award will support her project titled "Modeling and Dynamic Analyzing for Multiplex Social Networks."

Banerjee is a CISE Ph.D. student working in the Computer Vision, Graphics, and Medical Imaging lab under the supervision of professor Baba Vemuri. Her research interests include differential geometry, machine learning, pattern recognition, image processing, signal processing, bio informatics and artificial intelligence.

Banerjee's award will support her project titled "Robustness and Sparsity of Representation in Statistical Analysis of Manifold-valued Data with Applications to Neuroimaging & Computer Vision."

by Allison Logan



The team that created *Virtual Traffic Stop*, from left: DeKita Moon, Isabel Laurenceau, Michelle Emamdie, and Jessica Jones. (Lyon Duong/UF News)

App Aims to Take Risk Out of Traffic Stops

Many police officers will tell you the riskiest parts of their job are responding to domestic violence calls and making traffic stops.

A group of UF students has come up with a way to make the latter a little safer. The group, all students in the CISE department, developed [Virtual Traffic Stop](#), an app that allows the officer and the driver to remain in their vehicles during some stops.

While the idea was inspired by a series of police shootings, the students say their goal is to make the interaction between law enforcement and citizens safer for all involved.

“At the end of the day, everyone just wants to make it home,” said team member and doctoral student DeKita Moon.

Said her fellow team member and doctoral student Jessica Jones: “The goal is not to keep the police and the community separate; the goal is to keep the police and the community safe.”

Here’s how it works: A motorist downloads the app and enters their vehicle information, driver’s license, vehicle registration and proof of insurance. Police officers download a different version that can be used on their laptop.

When a driver is stopped, the officer enters the vehicle’s license plate number in the app and can see the driver’s information. The officer can then request a real-time video conference.

The app also makes it possible to bring a third party into the interaction – for instance, the parent of a minor.

For some stops, the students said, the interaction could be conducted entirely from the safety of the vehicles involved. But police will also tell you that they gather valuable information from a face-to-face encounter – the smell of alcohol on the driver’s breath, for example.

That would still be possible. Jones said if an officer sees anything during the video conference that raises concern or prompts suspicion, he or she could still approach the driver.

The app, team members say, would also reduce the risk officers face stepping out onto the shoulder of a highway or during inclement weather.

“Virtual Traffic Stop has the potential to save lives. That statement alone justifies testing this app. If we can save a single life with this app, it’s worth it,” said Juan Gilbert, The Banks Family Preeminence Endowed Professor and CISE chair.

by Steve Orlando

CRA Selects CISE Student as Research Award Finalist

Julia Woodward was selected as a finalist for the Computing Research Association's (CRA) Outstanding Undergraduate Researcher Award. She was 1 of 8 finalists from Ph.D. institutions, and the only students from UF to receive the honor for 2017.

Woodward said she hopes "this distinction will illustrate the importance of researching and working on technology for children."

She is the lab manager and research assistant in the Intelligent Natural

Interaction Technology Lab, which "focuses on advanced interaction technologies such as touch, speech and gesture, especially for children in the context of educational interfaces."

One of Woodward's current projects is Mobile Touch and Gesture Interaction for Children, which has been "investigating differences in touch and gesture interactions between children and adults, especially on mobile devices."

She is also working on



co-designing intelligent interfaces with children, and analyzing how children's movements differ from adults performing the same action.

"Being a finalist for the CRA Undergraduate Researchers Award is an amazing honor," Woodward said. "I am very proud to represent the University of Florida, and the award illustrates the incredible research and hard work being accomplished at our university."

"I wouldn't have been able to earn this award without the research opportunities for undergraduate students that UF offers and my research advisor Dr. Lisa Anthony."

by Allison Logan

Team of Students Advances in Cyber Defense Competition

A team of CISE students advanced to the Southeast Collegiate Cyber Defense Competition (CCDC). Of 33 teams that competed at the 2017 Virtual Preliminary Qualification Competition on Feb. 25, the UF team was 1 of 8 selected to advance.

The students are part of the UF Student InfoSec Team (UFSIT), which provides an environment for students to learn more about information security topics.

"Playing in CCDC is an excellent way to expand one's knowledge beyond the classroom for managing networks, machines and business needs as a team," said Grant Hernandez, a Ph.D. student and team member.

The CCDC is intended to "provide institutions with an information assurance or computer security curriculum a controlled, competitive environment to assess their student's depth of understanding and operational competency in managing the challenges inherent in protecting a corporate network infrastructure."

The competitions ask teams to assume administrative duties for an existing commercial network.

Each team begins the competition with an identical set of hardware and software and is scored on their ability to detect and respond to outside

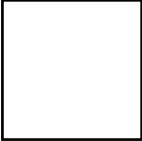
threats, maintain availability of existing services, and balance security needs.

"For a team to succeed in CCDC, they must be familiar with a wide variety of operating systems and services as well as their security vulnerabilities," said Joe Wilson, UFSIT faculty advisor and assistant professor.

"Most of the team members will not take jobs where they need to do the kinds of things they do in CCDC, but the preparation for CCDC is so far-reaching that it will help them in any job they could take in which information security is a concern."

by Allison Logan

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