MESSAGE FROM THE CHAIR

It was the worst of times, it was the best of times, it was the year when a tiny virus brought humanity to its knees, it was a year when science came through to save us in record time, it was a year that disrupted our travel and conferences, it was a year when we got more accomplished without travel, it was a year when our classrooms were empty, it was a year when online rooms were buzzing with activity, it was a year when we could not gather in groups, it was a year when together we accomplished much in teaching, research, and service, in short – 2020 was an extraordinary year where we all rose to the challenge and did the best we could to protect the health and future of our students.

While it was not business as usual at USF CSE this year, we conducted all usual business, and more this year, as you will see showcased in this report. Student enrollment continued to increase; staff and advisors helped students succeed in a new mode; faculty launched exciting new funded research projects. Of note this year was increased dedication for Broadening Participation in Computing (BPC).

Our BPC activities got a boost with a three-year, $579,737 grant from the Center for Inclusive Computing at Northeastern University for funding evidence-based approaches to attract and retain more women in computer science. USF was also recognized as an AnitaB.org BRAID Affiliates as an institution that has “committed to increasing the diversity of their computing departments.” Most importantly, I proudly announce that we graduated our first African American Ph.D. woman graduate this Fall 2020. Dr. Shamaria Engram’s dissertation was in computer security, guided by Professor Jay Ligatti, and focused on a theoretical and practical approach to unifying security policy enforcement. Dr. Engram has already accepted a position at the MIT Lincoln Laboratory.

We are located in the beautiful Tampa Bay area, which has several of the top-ranked beaches in the world, a sunny climate, and many opportunities for recreation and cultural activities. We look forward to welcoming you on campus sometime soon. Be it as a student, faculty, an alumnus who wants to connect back, a distinguished speaker, or simply as a respected guest and friend.

Sincerely,

Sudeep Sarkar
Professor and Chair
sarkar@usf.edu
The Department of Computer Science and Engineering received a three-year, $579,737 grant from the Center for Inclusive Computing at Northeastern University for funding evidence-based approaches to attract and retain more women computer science, information technology, and cybersecurity students.


Funded by the National Science Foundation, the S-STEM Flit-Path (Florida IT Pathways) program provides scholarships, curricular support, and co-curricular resources and activities to academically talented computing students with financial need in computer science, information technology, and computer engineering at FIU, UCF, and USF. The Flit-Path program has supported 145 students since 2017, and has provided $1,000,600 in scholarships to CS, CpE, and IT students.

More than 100 researchers, inventors, educators, and industry leaders gathered at the USF Research Park to discuss the emerging frontier in technology and how it can bring researchers and industry together to advance AI and develop today’s students as the AI innovators of tomorrow.

The centerpiece of the conversation was USF’s Institute for Artificial Intelligence+X, an interdisciplinary effort producing both new forms of AI and new applications: The “X” in AI+X is how this new technology is applied to real world problems. The institute is led by USF College of Engineering Distinguished Professor Lawrence Hall and Professor Sudeep Sarkar, and works to connect AI experts in Engineering with disciplines across campus, including medicine, psychology and education.

Learn More: https://adobe.ly/3gASLLG
CSE Assistant Professor Tempestt Neal received a grant for a project titled “Exploring Racial Disparities in the Treatment, Perceptions, and Tracking of COVID-19 Through Automated Stigma Detection and Sentiment Analysis of Social Media Data.”


CSE Assistant Professor John Licato receives award for anti-racism efforts at USF. Licato is Primary Investigator on a project titled “Argumentation Games to Cognitively Inoculate Against Anti-Black Bias,” with co-PI David Ponton from the School of Interdisciplinary Global Studies.


CSE Professor Sudeep Sarkar received a grant for a project titled “COVID-19 Economic Recovery Markers from Satellite Imagery for City-Scale Decisions.”


Mauricio Pamplona Segundo, CSE postdoctoral researcher at the USF Institute for Artificial Intelligence + X, Cole Hill, CSE graduate student, and Sudeep Sarkar, CSE Professor and AI+X co-director, partnered up with Rodrigo Minetto, UTFPR Professor, Allan Pinto, UNICAMP postdoc researcher, and Ricardo Da Silva Torres, NTNU Professor to participate and win the COVID-19 Custom Script upscaling competition.

**Research Benchmarks**

Academic Analytics 2018
Comparison Group: US Public Institutions
Overall Rank: 34

Federal Grants: 66%
Journals: 72%
Awards: 89%
Citations: 67%
Conference: 65%

**Degrees Awarded AY 2019-2020**

- BS in Computer Science (134)
- BS in Computer Engineering (65)
- BS in Cybersecurity (18)
- BS in Information Technology (92)
- MS in Computer Science (45)
- MS in Computer Engineering (9)
- MS in Information Technology (12)
- PhD in Computer Science and Engineering (21)
ACTIVE EXTERNAL RESEARCH GRANTS

Andujar, Marvin, A Brain Communication System, SOFWERX+ FHTC Matching Program, $97,000, 10/02/2019-10/01/2020

Canavan, Shaun (PI); Sarkar, Sudeep; Hall, Lawrence; Goldgof, Dmitry; Rosen, Paul, A Novel, Robust Fake Video Detection System, Defense Intelligence Agency, $904,980, 5/28/2020 - 5/27/2021


Chellappan, Sriram, “Defensewerx/Sofwerx Internship Program,” Defensewerx, $193,130, 8/1/19 - 8/1/20

Christensen, Kenneth (PI); Rafael Perez, Collaborative Research: Florida IT Pathways to Success (Flit-Path), NSF, $1,527,307, 10/1/2016-9/30/2021

Ciampaglia, Giovanni Luca (PI), EAGER: SaTC: Early-Stage Interdisciplinary Collaboration: Collaborative: Advances in Socio-Algorithmic Information Diversity, NSF, $150,000, 05/09/2019 - 05/31/2021

Gaspar, Alessio (USF); Rudolf Wiegand (UCF), Using Coevolutionary Algorithms to Identify Distractor Answers for Multiple Choice Questions Used for Peer Instruction, NSF, $599,890, 07/01/2020 07/01/2023

Gillies, Robert (Moffitt PI); Hall, Lawrence; Goldgof, Dmitry, Radiomics of Non-Small Lung Cancer, NCI/NIH, $220,522, 7/1/2016-6/31/2021

Mouton, Peter (SRC PI); Goldgof, Dmitry (USF PI); Hall, Lawrence STTR Phase II: Microscope-based Technology for Automatic Brain Cell Counts Using Unbiased Methods, NSF+ FHTC Matching Program, $439,712, 11/1/2019 – 9/30/2021

Goldgof, Dmitry (PI); Sarkar, Sudeep; Sun, Yu, An Automated Pressure Ulcer Monitoring System to Improve Pressure Ulcer Outcomes for Veterans with SCI, Tampa Veterans Administration, $127,838, 9/30/2016-9/29/2021

Iamnitchi, Adriana (PI); Hall, Lawrence; Skvoretz Jr., John, Modeling Information Diffusion Processes with Deep Learning Algorithms, DARPA, $1,704,461, 10/12/2017-10/11/2021


Skvoretz, John (PI); Iamnitchi, Adriana, Exploring Majority Illusion and Pluralistic Ignorance within the Context of Eastern European Social Media, ONR, $197,622, 02/01/2018-01/31/2020.

Karam, Robert, Conscious Ambulatory Bladder Monitoring to Understand Neural Control of Lower Urinary Tract Function, NIH (subaward from CCF), $68,484, 02/01/2018-8/30/2020

Karam, Robert (PI), Katkoori, Srinivas, Mozaffari-Kermani, Mehran, SaTC: EDU: Improving Student Learning through Competitive Embedded System Security Challenges, NSF, $499,145, 05/01/2020 – 04/30/2023

Katkoori, Srinivas (PI); Feasibility Study of a Portable Hazardous Chemical Detection System, FHTC Matching Program, $20,000, 06/15/2020- 06/14/2021

Wang, Hsiao-Lan (PI); Katkoori, Srinivas, I-Corps: Use of eHealth to Personalize Exergame Prescriptions, NSF, $50,000, 04/01/2018- 05/31/2021

Wang, Zhenyu (PI); Lin, Pei-Sung; Katkoori, Srinivas: Development of Automated Roadway Lighting Diagnosis Tools for Nightime Traffic Safety Improvement, CTEDD, UT-Arlington, $73,148, 06/24/19 - 08/31/20

Labrador, Miguel (PI); Sun, Yu, REU Site: REU Site on Ubiquitous Sensing, NSF, $439,215, 08/01/2016-07/31/2021
Athilingam, Ponrathi (PI); Labrador, Miguel, HeartMapp: A Closed-Loop Assessment and Treatment Mobile Application for Heart Failure, NIH-National Institute of Nursing Research, $225,000, 09/03/2018-08/31/2020

Licato, John, Active Formalization in Artificial and Human Reasoners, AFOSR, $450,000, 1/1/2018-12/31/2020

Licato, John, Great Computational Intelligence: Mature and Further Applied, Rensselaer Polytechnic Institute, $164,209, 3/15/2017-3/14/2022


Lin, Pei-Sung (PI), Ligatti, Jay; Li, Xiaopeng; Barbeau, Sean; Kourtellis, Achilleas, Identify Sources and Risks on Cybersecurity for Connected Vehicle Infrastructures, FDOT, $152,989, 5/18/2020-11/17/2021


Mozaffari Kermani, Mehran (PI), Investigating Active Side-Channel Attacks and Developing Countermeasures for Standardization of Lightweight Cryptography, NIST, $500,000, 04/01/2020-04/01/2024

Mozaffari Kermani, Mehran (PI), SaTC: CORE: Medium: Collaborative: Countermeasures Against Side-Channels Attacks Targeting Hardware and Embedded System Implementations of Post-Quantum Cryptographic Algorithms, NSF, $300,000, 10/1/2018-9/30/2022

Mozaffari Kermani, Mehran, Efficient Algorithms and Architectures for Post-Quantum Cryptography, NIST/FAU, $194,825, 10/1/2016-9/14/2020

Mozaffari Kermani, Mehran, Emerging Side-Channel Resistant and Resource-Friendly Elliptic Curve Algorithms and Architectures, ARO/FAU, $150,000, 5/1/2016-7/27/2020

Neal, Tempestt (PI); Thomas, Sylvia; Kosyluk, Kristin, Social Media Trend Analysis to Explore Racial Disparities in the Treatment, Perceptions, and Tracking of COVID-19, Microsoft $15,000 06/01/2020-05/31/2021

Thomas, Sylvia (PI); Neal, Tempestt; Negro, Alessandro, RAPID: Early Detection of Disease Outbreaks using Self-Organizing Patterns – COVID-19, NSF, $200,000, 05/07/2020-04/06/2021

Ou, Xinming (PI); Mazeurek, Michelle (Maryland PI); Lende, Daniel; Ligatti, Jay; Hicks, Michael (Maryland co-PI), SaTC: CORE: Medium: Collaborative: Understanding Security in the Software Development Lifecycle: A Holistic, Mixed-Methods Approach, NSF, $1,198,957, 09/01/2018-08/31/2021

Ou, Xinming, SaTC: CORE: Small: Collaborative: Data-driven Approaches for Large-scale Security Analysis of Mobile Applications, NSF, $200,000, 8/15/2017-7/31/2021

Zhang, Qiong (PI); Wells, Eric; Ou, Xinming; Lu, Qing; Mohebbi, Shima, CRISP Type 2: Integrative Decision Making Framework to Enhance the Resiliency of Interdependent Critical Infrastructures, NSF $1,963,542 09/01/2016-08/31/2021

Phillips, Bei (PI, Utah); Rosen, Paul, III: Medium: Collaborative Research: Topological Data Analysis for Large Network Visualization, NSF, $793,089, 09/01/2015-08/31/2020

Rosen, Paul, CAREER: Discovering Structure in Uncertainty: Using Topology for Interactive Visualization of Uncertainty, NSF, $ 526,784, 08/15/2019-08/14/2024

Sanberg, Paul (PI); McDevitt, Valerie; Fountain, Michael; Sarkar, Sudeep, I-Corps Sites: University of South Florida: Catalyzing Research Translation, NSF, $299,708, 04/01/2015-03/31/2021

Sanberg, Paul (PI); Zayas-Castro, Jose; Sarkar, Sudeep; McDevitt, Valerie, I-Corps Sites: Type II - I-Corps Site at University of South Florida Tampa, NSF, $160,000, 10/01/2018-09/30/2020
Sarkar, Sudeep (USF); Srivastava, Anuj (FSU); Aakur, Sathyarayanan (OSU), RI: Medium: Collaborative Research: Understanding Events from Streaming Video – Joint Deep and Graph Representations, Commonsense Priors, and Predictive Learning, NSF, $1,005,543, 10/1/2020—9/30/2024

Dubey, Rajiv (PI); Sarkar, Sudeep; Reed, Kyle; Alqasemi, Redwan, M3X: Achieving Autonomy by Learning from Sensor-Assisted Control in a Wheelchair-Based Human-Robot Collaborative System, NSF, $496,383, 09/01/2018- 08/31/2021

Sun, Yu (PI), Dmitry Goldgof, Thao Ho, Denise Maguire, Yangxin Huang, A Multimodal Approach for Monitoring Prolonged Acute Pain in Neonates, NIH R21, $400,567, 7/16/2020-6/30/2022

Sun, Yu, RI: Small: Generalizing Learned Manipulation Skills to Unseen Situations by Balancing Uncertainties, NSF, $334,823, 9/1/2019/-8/31/2022

Okamura, Allison (PI, Stanford); Sun, Yu (USF), CHS: Small: Collaborative Research: Wearable Fingertip Haptic Devices for Virtual and Augmented Reality: Design, Control, and Predictive Tracking, NSF $173,338 (USF portion), 08/01/2018-07/31/2021

Sun, Yu, Robotic Logistic Research, Alibaba Group Cainiao Smart Logistics Network, $55,000

Jean-Marc Fellous (U Arizona), Weitzenfeld, Alfredo (USF), RI: Medium: Collaborative Research: Experimental and Robotics Investigations of Multi-Scale Spatial Memory consolidation of Complex Environments, NSF, $ 1,026,376, 9/1/2017-8/31/2021

Yavuz, Attila, CAREER: Lightweight and Fast Authentication for Internet of Things, NSF, $500,000, 03/2017 - 02/2022

Yavuz, Attila, Lightweight and Quantum-Safe Authentication for Internet of Things, Cisco Research Award, $60,306, 06/2019 - 12/2020

Yavuz, Attila, Low-cost, Scalable and Practical Post Quantum Key Distribution (sub-award), Department of Energy - Cyber Resilient Energy Delivery Consortium, $100,000, 06/2020 - 09/2021

Yavuz, Attila, Cloud Security Technologies and Oblivious Random Access Machine, Robert Bosch, $150,000, 12/2018 - present

JING WANG AWARDED THE 2020 WLP DR. KATHLEEN MOORE FACULTY EXCELLENCE AWARD
March 9, 2020

Jing Wang, Ph.D., instructor of computer science and engineering, was awarded the 2020 WLP Dr. Kathleen Moore Faculty Excellence Award for her research and commitment to women in computer science and engineering.


YAO LIU AWARDED THE TEST OF TIME AWARD AT THE 26TH ACM CONFERENCE ON COMPUTER AND COMMUNICATIONS SECURITY
November 22, 2019

Computer Science and Engineering Associate Professor Yao Liu was awarded the Test of Time Award at the 26th ACM Conference on Computer and Communications Security for the paper titled “False Data Injection Attacks against State Estimation in Electric Power Grids.”


THREE COMPUTER SCIENCE AND ENGINEERING FACULTY RECEIVE 2020 EXCELLENCE IN INNOVATION AWARDS

Daniel Yeh (CEE), Dmitry Goldgof (CSE) and Venkat Bethanabotla (CHBME) are three of five USF faculty to receive 2020 Excellence in Innovation Awards.


PAUL ROSEN RECEIVES NSF CAREER AWARD

Paul Rosen (CSE) received an NSF CAREER Award to study uncertainty visualization. Awarded under the title, “Discovering Structure in Uncertainty: Using Topology for Interactive Visualization of Uncertainty,” the funding allows Rosen to build on his work of developing mathematical tools that optimize data, resulting in improved digital descriptions of materials and their associated behaviors.

Learn More: https://bit.ly/3a08W4g
ATTILA YAVUZ AWARDED THE CISCO RESEARCH CENTER AWARD

June 25, 2019

USF Department of Computer Science and Engineering Assistant Professor Attila Yavuz was awarded the Cisco Research Center Award for his project entitled “Lightweight and Quantum–Safe Authentication for the Internet of Things.”

Learn More:  https://bit.ly/3a3cjXZ

TEMPESTT NEAL ACCEPTED INTO THE ACM FUTURE OF COMPUTING ACADEMY

October 8, 2019

USF Computer Science and Engineering Assistant Professor Tempestt Neal has been accepted into the ACM Future of Computing Academy (FCA).


HAO ZHENG IS PART OF A MULTI-UNIVERSITY PROJECT AWARDED A $1M NSF GRANT

July 24, 2019

Hao Zheng is the USF Principal Investigator (PI) for a $1M National Science Foundation (NSF) grant. The project is titled “FET: Medium: Collaborative Research: An Efficient Framework for the Stochastic Verification of Computation and Communication Systems Using Emerging Technologies.”

Learn More:  https://bit.ly/2W0Q90f

JOHN MORGAN RECEIVES OUTSTANDING UNDERGRADUATE ADVISING AWARD

November 22, 2019

Computer Science and Engineering advisor, John Morgan, Ph.D., received his second Outstanding Undergraduate Advising Award on November 22 at the 2019 USF Faculty Honors and Awards Reception.

Learn More:  https://bit.ly/3n5t34t
CSE PARTICIPATES IN HISPANIC HERITAGE MONTH

October 9, 2019

On September 18, USF Computer Science and Engineering hosted the event “Latinx Coders: Expanding our Reach in Computing” as part of USF’s Hispanic Heritage Month.


USF HOSTS INTERNATIONAL INTERNET OF THINGS CONFERENCE

The International Federation of Information Processing (IFIP) hosted its second Internet of Things (IoT) conference for the first time at USF. The conference welcomed doctoral students, professors and researchers from Florida and from around the world and covered a range of IoT topics, from the technical specifics of new IoT devices to the environmental and ethical considerations surrounding IoT technologies. USF Ph.D. students, some of which study under conference chair and USF Computer Science and Engineering professor Srinivas Katkoori, attended and helped organize this year’s conference.

Major League Hacking named CSE students Akash Singh and Jamshidbek Mirzakhlov two of the top 50 hackers.


CSE SOCIETY OF COMPETITIVE PROGRAMMERS ELEVATES USF’S STATUS IN THE HACKING COMMUNITY

October 18, 2019

The Computer Science and Engineering student organization Society of Competitive Programmers (SCP) is transforming USF into a competitive hacking school.


USF CSE WHITEHATTERS COMPUTER SECURITY CLUB WON SECOND PLACE AT THE RAYMOND JAMES CAPTURE THE FLAG COMPETITION

The USF Computer Science and Engineering Whitehatters Computer Security Club (WCSC) won second place at the Raymond James Capture the Flag Competition on October 19th, beating our rivals at UFC by 382 points.

CSE WHITEHATTERS COMPUTER SECURITY CLUB PLACES IN THE TOP THIRDS NATIONALLY AT THE DEPARTMENT OF ENERGY’S CYBERFORCE COMPETITION

November 20, 2019

In their first appearance at the Department of Energy’s CyberForce Competition, the Whitehatters Computer Security Club (WCSC) placed in the top third nationally (31 out of 104).

Learn More:  https://bit.ly/3m6LSTM

CSE STUDENT ORGANIZATIONS PARTICIPATE IN ENGINEERING EXPO 2020

March 9, 2020

The College of Engineering held its annual Engineering Expo on February 21-22, inviting K-12 students from more than 10,000 schools to USF to learn about different aspects of STEM.


TRENT CALLAHAN AND TREVOR AMMONS EACH AWARDED A $1,500 NSF TRAVEL GRANT

October 8, 2019

USF Computer Science and Engineering (CSE) undergraduate students Trent Callahan and Trevor Ammons have each been awarded a $1,500 NSF travel grant to attend the upcoming 2019 Secure and Trustworthy Cyberspace Principal Investigators’ (SaTC PI) Meeting.

CSE STUDENTS ALEXANDER PALASEK AND JODY RUTTER INDUCTED INTO PHI BETA KAPPA

May 1, 2020

CSE undergraduate students Alexander Palasek and Jody Rutter were inducted into Phi Beta Kappa, the oldest and most respected undergraduate honor society for the liberal arts and sciences in the United States, during the Spring 2020 induction ceremony.

CSE STUDENT WILLIE MCCLINTON RECEIVES THE NSF GRADUATE RESEARCH FELLOWSHIP PROGRAM AWARD

April 23, 2020

CSE undergraduate student Willie McClinton received the NSF Graduate Research Fellowship Program Award. This program recognizes outstanding graduating seniors and graduate students in NSF-supported STEM who are pursuing research-based degrees at accredited U.S. institutions. McClinton is one of three USF students to earn this award.

CSE GRADUATE STUDENTS DANTE TEZZA AND SARAH GARCIA RECEIVE THE GENERATION GOOGLE SCHOLARSHIP

May 21, 2020

CSE graduate students Dante Tezza and Sarah Garcia each received the Generation Google Scholarship. Tezza and Garcia are Ph.D. students working with Assistant Professor Marvin Andujar in the Neuro-Machine Interaction lab. The scholarship for computer science students provides each awardee $10,000 for the 2020-2021 academic year. In previous years, only 20 students nationally were awarded the scholarship.

SARAH GARCIA RECEIVES SMART SCHOLARSHIP
May 20, 2020

CSE graduate student Sarah Garcia received the SMART scholarship. This scholarship was “established as a concentrated effort to enhance the Department of Defense (DoD) workforce with talented, innovative and brilliant scientists, engineers and researchers.”

Learn More: https://bit.ly/3mb5y8Q

CSE STUDENT BLANCHE PINTO RECEIVES AFTERCOLLEGE ENGINEERING & TECH STUDENT SCHOLARSHIP AND GOLDEN BULL AWARD
May 6, 2020

CSE graduate student Blanche Pinto recently received the AfterCollege Engineering & Tech Student Scholarship as well as the Golden Bull Award.


TROI WILLIAMS AWARDED A 2019 MICROSOFT RESEARCH DISSERTATION GRANT
July 3, 2020

The Department of Computer Science and Engineering would like to recognize Troi Williams for receiving a 2019 Microsoft Research Dissertation Grant for his proposal entitled “Hunting Mosquito Breeding Habitats Using Drones and State-Dependent Measurement Models.”


HUNTER MORERA RECEIVES ALFRED P. SLOAN SCHOLARSHIP
May 20, 2020

CSE graduate student Hunter Morera received a scholarship from the Alfred P. Sloan Foundation’s Minority Ph.D. (MPHD) program.

USF COMPUTER SCIENCE AND ENGINEERING PH.D. STUDENTS SARAH GARCIA AND JORGE ADORNO NIEVES AWARDED GMIS SCHOLARSHIPS

October 21, 2019

USF Computer Science and Engineering (CSE) Ph.D. students Sarah Garcia and Jorge Adorno Nieves were each awarded a 2019 Great Minds in STEM (GMiS) scholarship.

Learn More: https://bit.ly/3qSmMvn

USF COMPUTER SCIENCE AND ENGINEERING PH.D. STUDENT BLANCHE PINTO AWARDED THE 2019-2020 NUTANIX WOMEN IN TECHNOLOGY SCHOLARSHIP

October 25, 2019

USF Computer Science and Engineering Ph.D. student Blanche Pinto was awarded the 2019-2020 Nutanix Women in Technology Scholarship in the amount of $7,500.


CSE PHD STUDENTS ATTEND COHORT WORKSHOP FOR WOMEN

CSE Ph.D. students Sayde King and Ausmita Sarker were selected to attend the 2020 CRA-WP Graduate Cohort Workshop for Women on April 16-18, 2020. They are part of a select group of students who will receive full support from CRA and their sponsors to attend the event.

AUSMITA SARKER RECEIVES BEST POSTER AWARD

CSE Ph.D. student, Ausmita Sarker, received Best Poster Award at the 11th Annual Graduate Student Research Symposium hosted by USF Graduate Studies.

USF ENGINEERING STUDENTS SPEND SUMMER AT INTEL, TWITTER, CUMMINS

Blanche Pinto (CSE) and other engineering students discuss how their summer internships with industry leaders have improved their experience in their fields.

USF CSE ALUM CINDY BETHEL APPOINTED TO THE COMPUTING RESEARCH ASSOCIATION

April 24, 2020

Cindy Bethel, Ph.D., a USF CSE alumna (’09), has been appointed to the Computing Research Association Board of Directors for term 2020-2023. Bethel is a Billie J. Ball Endowed Professor at Mississippi University, Department of Computer Science and Engineering. She is an IEEE and ACM senior member, Vice President and member of the Mississippi Fulbright Association, as well as the special assistant vice president for the MSU Office of Research and Economic Development. Bethel is also doing research which focuses on “robotic therapeutic support, information gathering from children, and the use of robots for law enforcement, search and rescue, and military.”

USF HEALTH NEUROLOGY AND VUESSENCE COLLABORATE ON STROKE EARLY-DETECTION TEST

July 9, 2019

VuEssence founder and CSE alum, Dr. Maha Sallam, ’97 Ph.D., and researchers at USF Health are developing a diagnostic blood test that is intended to speed treatment critical to improving ischemic stroke outcomes.

Learn More: https://bit.ly/3oUa1hV
ENGINEERING ALUM HONORS HIS FATHER WITH A SCHOLARSHIP FUND

June 20, 2019

Dennis Blankenship, ‘87 believes in the power of giving and he’s paying it forward by establishing the Norman N. Blankenship Family Scholarship for Engineering.


JOE ROGERS MEMORIAL SCHOLARSHIP

A memorial scholarship has been established for CSE alum Joe Rogers, ’96 BS in computer science and computer engineering, ’02 MS in computer engineering. Joe worked as a USF network engineer and co-founded the Whitehatters Computer Security Club. The scholarship will benefit a CSE undergraduate. Go to the Herd Funder site to contribute to the Joe Rogers Memorial Scholarship.

SCHOLARSHIP HONORS A MOTHER’S LEGACY

The debt that is owed to a parent who helps a child succeed is not easily repaid, but Lakecia Gunter has found a way to pay forward what she received from her mother. Since earning her Bachelor of Science in computer engineering in 1995, Gunter has built a career recognized for technical expertise and industry leadership in promoting access to technology. As part of her vision to increase access to STEM education opportunities, she recently established the Barbara Griffin Memorial Family Scholarship, which reflects her personal commitment to supporting the aspirations of engineering students.

Learn more: https://bit.ly/37WM3fi

PROFESSOR RANGANATHAN MEMORIAL SCHOLARSHIP FUND

Ranga, a distinguished university professor of computer science and engineering, was a much loved and respected figure in the College of Engineering. A fund has been established to provide scholarships for full-time graduate students pursuing a major in computer science and engineering. To contribute, go to USF Giving and select Give to a Specific Fund. Enter Professor Ranganathan Memorial Scholarship (#220134).

Learn more: https://bit.ly/37WM3fi
## PHD GRADUATES AY 2019-2020

<table>
<thead>
<tr>
<th>NAME</th>
<th>ADVISOR(S)</th>
<th>TITLE OF DISSERTATION</th>
<th>CURRENT EMPLOYMENT</th>
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<tbody>
<tr>
<td><strong>SUMMER 2019</strong></td>
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<tr>
<td>Sathyanaraya Aakur Narasimhan</td>
<td>Sudeep Sarkar</td>
<td>Beyond Labels and Captions: Contextualizing Grounded Semantics for Explainable Visual Interpretation</td>
<td>Assistant Professor</td>
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<tr>
<td>Essa Alhazmi</td>
<td>Andriana Iamnitchi</td>
<td>Phenomena of Social Dynamics in Online Games</td>
<td>Assistant Professor</td>
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<td>Adel Alshehri</td>
<td>Sriram Chellappan</td>
<td>A Machine Learning Approach to Predicting Community Engagement on Social Media During Disasters</td>
<td>Assistant Professor</td>
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<tr>
<td>Cagri Cetin</td>
<td>Jay Ligatti</td>
<td>Authentication and SQL-Injection Prevention Techniques in Web Applications</td>
<td>Security Software Engineer</td>
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<tr>
<td>Dakun Shen</td>
<td>Yao Liu</td>
<td>Malicious Manipulation in Service-Oriented Network and Software Systems: Threats and Defenses</td>
<td>Assistant Professor</td>
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<td>Tao Wang</td>
<td>Yao Liu</td>
<td>Wireless Physical Layer Design for Confidentiality and Authentication</td>
<td>Assistant Professor</td>
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<td><strong>FALL 2019</strong></td>
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<td>A.T.M. Golam Bari</td>
<td>Alessio Gaspar</td>
<td>Interactive Fitness Domains in Competitive Coevolutionary Algorithms</td>
<td>Senior Software Engineer</td>
</tr>
<tr>
<td>Yuting Cao</td>
<td>Hao Zheng</td>
<td>A Communication-Centric Framework for Post-Silicon System-on-chip Integration Debug</td>
<td>Research and Development Engineer</td>
</tr>
<tr>
<td>Zhila Nouri Lewis</td>
<td>Yicheng Tu</td>
<td>A GPU-Based Framework for Parallel Spatial Indexing and Query Processing</td>
<td>Assistant VP of Big Data Engineer</td>
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<td>Junyi Tu</td>
<td>Yicheng Tu</td>
<td>Efficient Algorithms and Applications in Topological Data Analysis</td>
<td>Post Doc</td>
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<tr>
<td>Name Withheld Upon Request</td>
<td>Jay Ligatti</td>
<td>Authentication Usability Methodology</td>
<td>Software Engineer</td>
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<td>Name</td>
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<td>Ahmad Alagil</td>
<td>Assistant Professor I Umm Al-Qura University I Mecca, Saudi Arabia</td>
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<tr>
<td>Yan Albright</td>
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