# FSUCS Newsletter

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# Chair's Message

It is with pleasure that I write this message for the annual FSU CS newsletter as I am excited to share what has been taking place in our department during the past year. The department has had a dynamic year. We continue to experience growth throughout all facets of our department, including student enrollment and faculty head-count. We introduced a new BA major in Computer Programming and Applications to meet the student demand. Our Cybersecurity program made the news recently and our faculty and students continue to win honors and awards including a university teaching award. The department has also recently been awarded the largest grant that we have ever received in the history of the department. Our continued growth and the stories here show the special talent we have in our students and faculty, and I am pleased to share this news from 2016-2017 with you all.



#### Tenure Track and Specialized Faculty Hires for Fall 2017



Dr. Shavok Chakraborty will join the department in Fall 2017 as an Assistant Professor. Prior to joining FSU, Dr. Chakraborty held a research faculty position at Arizona State University, where he was an Associate Director of the Center for Cognitive Ubiquitous Computing (CUbiC) laboratory. He received his PhD in Computer Science from Arizona State University in 2013. He has worked as a Post-doctoral researcher at Intel abs, Oregon and in the Electrical and Computer Engineering department at Carnegie Mellon University. He also had a collaboration with the machine learning department at Microsoft Research, Redmond. Dr. Chakraborty's research interests include machine learning and computer vision.



Dr. Jiawei Zhang will join the department in Fall 2017 as an assistant professor. Dr. Zhang received his PhD degree in Computer Science from University of Illinois at Chicago in August 2017. Dr. Zhang's research interests span the fields of Data Science, Data Mining, Network Mining, and Machine Learning. Dr. Zhang's research works focus on fusing multiple large-scale information sources of diverse varieties together, and carrying out synergistic data mining tasks across these fused sources in one unified analytic. Dr. Zhang also has industrial research experiences working at Microsoft Research in 2014, IBM T. J. Watson Research Center in 2015, and Yahoo! Research in 2016.



Our department is pleased to welcome Sharanya Jayaraman, a graduate of our own department, as a member of our specialized faculty. Sharanya obtained a Bachelor of Engineering in CS from Anna University, India, in 2010. She obtained industry experience with Tata Consultancy Services working on a project for Target. She received a Master of Science degree in Computer Science in 2014 from FSU. Following this, she hopes to earn a PhD in Computer Science from FSU under the guidance of Prof. Michael Mascagni. Sharanya's interests include High Performance and Scientific Computing, Monte Carlo Methods, Computer Architecture, and Operating Systems.

### Caitlin Carnahan Heads to Carnegie Mellon for PhD



#### Teaching Faculty Member Caitlin Carnahan to Enter Physics Doctorate Program at Carnegie Mellon.

After nine years at FSU as both a student and a faculty member, Caitlin Carnahan will be leaving this fall to join the Physics department at Carnegie Mellon University as a PhD student. Over the past two and a half years, Caitlin has taught six different courses for the Computer Science department including Computer Or-

ganization II, Python Programming, and Programming Languages. In addition to her teaching duties, Caitlin has organized the annual CS Expo and Honors Day events as well as served as the FSU ACM chapter advisor. Caitlin will be missed at FSU, and the department wishes her the best on her new ventures at Carnegie Mellon!

#### Melina Myers Wins University Teaching Award First Teaching Award for



the Department since 2003. Throughout the university, only 18 faculty members won the Undergraduate awards. The University Teaching Award recognizes teaching excellence as multi-faceted, involving areas such as providing a positive role model to students, imparting a respect for truth and a love of learning, challenging students' thinking and assumptions, showing respect for all persons, and innovative instructional techniques.

Melina joined the department in 2013. She has taught a number of

courses including COP3014 Introduction Programming, COP3353 Introduction to UNIX, COP3502 Introduction to Computer Science, CGS3416 Java Programming for Non-Spcialists, and CGS2100 Micro -computer applications for Business/Economics

#### CS Department Awarded Large Allocation of FSU Technology Fee

The Computer Science Department has been awarded \$122K Technology Fee to upgrade its instructional technology infrastructure in six projects:

- (1) Improve Wireless Coverage for Computer Labs & Offices
- (2) Upgrade Network Lab Computers
- (3) Upgrade Data Center Server Switch
- (4) Update Projection Systems
- (5) Update Majors Lab Computers
- (6) Upgrade Department-Wide SSH Software.

Systems group manager Yu Wang and member Sigrun Ahlquist developed proposals for the six projects which were accepted by the IT Governance Council. The funds will significantly enhance the department's instructional technology resources for students and faculty.

#### Dr. Andy Wang and Dr. Weikuan Yu Promoted The Department extends its congratulations to Dr. Andy Wang and Dr. Weikuan

Yu on their promotion to Full Professor starting August 2017

- Andy Wang received his Ph.D. and M.S. in Computer Science from UCLA in 2003 and 1998, and his B.S. from UC Berkeley in 1995. He joined the Department of Computer Science at FSU in 2003. His research interests include file systems, optimistic peer replication, performance evaluation, ad hoc network routing, operating systems, and distributed systems.

- Weikuan Yu has been an Associate Professor at Florida State University since 2015. Prior to that, he held positions in Auburn University and Oak Ridge National Laboratory. Dr. Yu's areas of specialization include big data, high-performance computing, computer architecture, file and storage systems, and interdisciplinary research on computational genomics. He earned his PhD in Computer Science and MS in Neurobiology from the Ohio State University.

#### Peixiang Zhao Receives Big Graph Computation Grant



The NSF awarded a 2 year \$200,000 grant to Peixiang Zhao for his research in big graph management, computation and Mining. The project titled "Facilitate Graph Computation by Graph Sparsification", was awarded from the NSF directorate CISE:IIS:III. In the past decade, modern science and technology have witnessed an explosive growth of networked systems giving rise to a vast ocean of data with completely transformed scale, structure, and complexity, which are often modeled and interpreted as graphs. However, real-world graphs are voluminous and exhibit

unprecedented complexity and challenges, rendering them extremely hard to manage, costly to ingest, and complicated to analyze. In this project, Zhao and his students will systematically investigate the principles, methodologies, and algorithms of graph sparsification. The objective of this project is to simplify large-scale graphs into structure-enriched, quality-preserving graph summaries moving toward facilitating and optimizing a wide range of graph-based computations in real-world big graphs.

#### Computer Science Introduces New BA: Computer Programming and Applications

The new major kicked off in Spring 2017 and has seen high interest among students searching for a degree that fits their desires.

The new BA program provides a broad-based background sufficient for entry to a career in computing. It provides an applications view of computing, emphasizing the interdependence of programming, object orientation, and software design and engineering. This major develops core competencies in programming, data structures, software engineering, and computer organization. It allows opportunities to study a range of other aspects of computer and information science, such as web programming, mobile programming, cyber security, digital forensics, databases and data engineering, data communication and networks, computer and network systems administration, computer systems, and theoretical computer science. This major is also intended to give students flexibility in combining computing with other interests. For more information, please visit the new major's webpage at http://www.cs.fsu.edu/academics/undergraduate-programs/bacpa/.

## FSU Cybersecurity Ranks in Top 10 Best for Veterans



The FSU Cybersecurity program in the Computer Science department has been ranked 6th overall (1st overall in the state of Florida) in the Military Times' 2017 top 10 Best for Vets list.

Photo via Military Times

National Security Agency and Department of Homeland Security designated FSU as a National Center of Academic Excellence in both Information Assurance/Cybersecurity Education and Research. The program was awarded a \$4.6 million grant last year from the National Science Foundation that will help dozens of cybersecurity students finance their education.

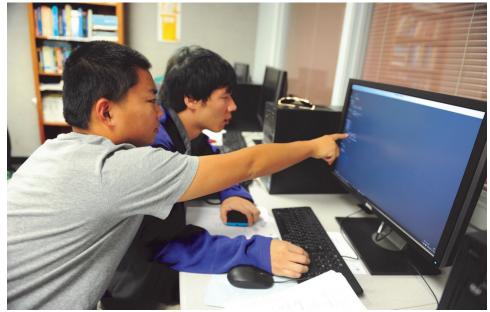
# Dan Schwartz Wins Contract from Office of Naval Research

Computer Science Faculty Member Dan Schwartz has recently obtained a software development contract in the amount of \$50,000 from the Office of Naval Research. The project is entitled "Naval Message Traffic Monitoring for Mine Countermeasures".

#### Sudhir Aggarwal and Tathagata Mukherjee Receive New Award from National Institute of Justice

Professor Sudhir Aggarwal and Tathagata Mukherjee recently received an award from the National Institute of Justice in the amount of \$541,232. The award supports the project "Targeted Forensic Data Extraction from Mobile Devices." Such devices now have so much data on them that the privacy of this data is a reasonable concern. The goal of this proposal is to develop a prototype software system that supports relevant data extraction from iOS or Android based devices in a forensically sound manner.

#### FSU Computer Science Awarded Largest Grant in History of Department



In September 2016 the Computer Science Department was awarded its largest grant in the history of the department. The department received a 5-year NSF CyberCorps Scholarship for Service (SFS) grant for \$4.6 million. The grant will provide scholarships for students who commit to getting an MS CS degree in the Cybersecurity track. The grant also supports a more limited number of students during their senior year of the BS CS before they enter the MS CS program. In total the grant will support 64 graduate student scholarship years and 8 undergraduate scholarship years. Students in the SFS program receive an academic year stipend (\$22,500 for seniors and \$34,000 for graduate students), tuition and fees, health insurance reimbursement, and a \$2,000 textbook allowance. In addition, each student will be provided a paid summer internship with a federal agency. Professor Mike Burmester is the PI on this grant and Professors Xiuwen Liu, David Whalley, and Jie Yang are the co-PIs.

Florida State University, Department of Computer Science

## David Whalley Named IEEE Fellow

David Whalley has been elevated to IEEE Fellow effective January 1, 2017 "for contributions to architectural and compilation techniques to meet embedded system constraints." The IEEE Grade of Fellow is conferred by the IEEE Board of Directors upon a person with an outstanding record of accomplishments in any of the IEEE fields of interest. The total number selected in any one year cannot exceed one-tenth of one-percent of the total voting membership. IEEE Fellow is the highest grade of membership and is recognized by the technical community as a prestigious honor and an important career achievement. David Whalley is the second member of the department elevated to the IEEE fellow status after Ted Baker.



## Computer Science Honors Day Awards Ceremony 2017

The FSU Department of Computer Science hosted its annual Honors Day Ceremony in late April. Many students in the department were recognized for their outstanding accomplishments, whether as students or as Teaching Assistants, and many were recognized for receiving fellowships and scholarships. Students were also recognized for their achievements in the bi-annual programming competition held by ACM, a favorite departmental event.

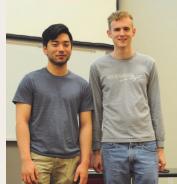


**Outstanding TA Awards:** Javier Escobar-Avila, Jacob Katampilly, Michael Stokes, William (John) Thrasher, Zachary Yannes.



Harris Scholarship Graduate Fellowship: Luis Penagos Harris Scholarship Undergrad Scholarship:

Michael Mullings, Zach Sirotto, James "Dustin" Moody



Phi Beta Kappa Inductees: Woohyeong Kim, William McCall Parker, Ian Terry, Erin Wiggins, James Picker, Joshua Williams, Emilio Figueroa



Hall Family Endowment Scholarship: Daniel Kane

**Scholarship for Service (not pictured):** James Picker, Ronald Ramos, Michael Woodham, Taylor Shields, Brandon Everhart, Kira Lessin, Nickolas Donnell, Grady Denton, Robert Minter, Weeraphat Amornrattanapon, Douglas Hennenfent, Ian Michaels, Jacob Knoblauch, Rebecca Powell, Ricardo Alvarez, Samir Yuja, Mitchell Schmidt, Shawn Stone, Johann Thairu, Jason Hawkins, Shane Bennett, Leon Gonzalez, Ranjan Canekeratne, Charisa Powell, James Sumlin, Carl Bellefleur, Christian Vazquez, Elliot Mudrick



**S-STEM Scholars:** Richard Allen, Grace Bunch, Peter Connolly, BJ Charles, Ariana Maria Davis, Tatiana Joseph, Nicholas Kelton , Bayan Kharazmi , Miguel Mejia, James Picker, Ashley Roberts, Taylor Shields, Remington Trettin , Timothy Barao , Jared Bennett, Connor Christian, Raidel Hernandez, Lex Joseph , Dillon Hall-Rodriguez , Matthew O'Hagan, Emilio Figueroa, David Scher-Arazi , Alexander Petrov , Jennifer Yarboro , Zachary Pell, Michael Mullings, Luis Penagos , Iman Taylor



**Upsilon Pi Epsilon Inductees**: James Bach, Yunior Batista, Nicholas Feanny, Thai Flowers, Marvin Mallari, Austin Medina, Redden Money, Michael Mullings, AJ Nahapetian, Abigail Perry, Xiangzhen Sun, Adam Taylor, Alexis Taylor, M. Shakil Usman, Joshua Williams, Matthew Harrison

**Carl and Ermine Owenby Sr. Scholarship:** Grace Bunch (not pictured)

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