

FSU CS NEWSLETTER

Department of Computer Science



CHAIR'S MESSAGE

It is with great pleasure that I write this letter for our annual FSU CS newsletter. The department has experienced significant expansion in the past several years due to the hard work of our faculty and staff. Our student enrollment reached a record high of 778 undergraduate majors and 171 graduate students in Fall 2014. To keep up with this pace of growth, the department has also been hiring tenure-track and specialized faculty. The department continues to excel as our faculty and students continue to receive honors and awards. Our department faculty have recently been awarded a significant amount of research funding. I hope that you read the enclosed articles to learn more about the department and encourage you to explore the department through our web pages and to visit us in person if you have the opportunity to do so.

Florida State receives \$300,400 to fund Scholarships For Service Program

Florida State University was granted \$300,400 in additional support for its National Science Foundation (NSF) Scholarships For Service (SFS) Cybercorps program. The program includes Florida State Master's Degree students in Computer Science, IT, and Computer Criminology. Mike Burmester, Professor and Director of the Center for Security and Assurance in IT (C-SAIT), supports the program initiative and called it, "a great program in which students could really value the professional opportunity while receiving an excellent benefit package."

The program funds will support up to 50 CyberScholars for the period 2010-2017. Scholarship recipients shall pursue academic programs in Information Assurance for up to three years: the last undergraduate year (senior) and up to two years at the MS level. They will participate as a cohort during their studies and activities, including a summer internship in a federal agency at the end of their first year of support.

Professor Zhi Wang Wins NSF CAREER Award

FSU's Computer Science faculty member, **Dr. Zhi Wang**, has recently received this year's National Science Foundation (NSF) CAREER Award, the most prestigious award from NSF for up-and-coming junior faculty. This award will provide a funding package of \$500K in the next five years to support Prof. Wang's research and career development. The department is no stranger to the NSF CAREER award and is now sporting five CAREER award winners, the highest number among all departments at Florida State University.

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NEWS & UPDATES

Computer Science Professor Leads Multi-University Ebola Research Team



Associate Professor of Computer Science, **Dr. Ashok Srinivasan**, has been tapped to lead a research team with the goal of finding new ways to decrease the risk of Ebola being spread through air travel. The team is comprised of Dr. Srinivasan, along with other researchers from Embry Riddle Aeronautical University and Arizona State University respectively. The research is imperative for limiting the number of air travel passengers exposed to the disease via unknown persons infected on a plane. Funding for the project comes via the National Science Foundation and its Rapid Response Research Grant fund dedicated to funding those finding solutions for the virus. Dr. Srinivasan mentioned, "Predicting exact human response to policy decisions is difficult. Rather, we aim to identify vulnerabilities in different policy options given inherent uncertainties, and we need to determine if some of these vulnerabilities will lead to disastrous consequences, such as causing an epidemic in the US." The implemented software and modeling infrastructure that will eventually could be used with other infectious disease scenarios as well. He hopes that this research will be completed before the next threat of an outbreak occurs.

Ann Ford Tyson Retires



Most of our recent alumni should remember **Mrs. Ann Ford Tyson**, who served in the department for 11 years. Mrs. Ann Ford Tyson joined the department in 2003 as an Associate in Computer Science and worked her way to a Senior Lecturer when she retired in May 2014. Prior to coming to FSU, Ann was a Lecturer in the College of Engineering at the University of Michigan, where she taught for 16 years. At FSU, Ann taught a variety of courses, especially the beginning programming courses such as COP3014 Programming I, COP3330 Object-Oriented Programming, and COP3353 Introduction to UNIX. Ann has also authored six textbooks and performed various departmental services, including organizing the CS Honors Day. Mrs. Tyson has started a new career as a certified personal fitness trainer, and is currently working in that capacity at Premier Fitness in Tallahassee. We all wish Ann the best in her future endeavors.

Dr. Xin Yuan Receives Los Alamos National Laboratory Designation

Dr. Xin Yuan has received multiple sub-contracts from the Los Alamos National Laboratory totaling \$164,000 to develop new techniques to simulate and evaluate emerging interconnection networks for supercomputers.

The team led by Dr. Yuan will develop novel techniques to evaluate interconnected topology and routing designs using application-level performance metrics. They will also examine the emerging networking technology such as software defined networks, and investigate the applicability of the emerging software defined network technology to supercomputer interconnects.



FSU receives a national Cyber Security designation for 2014-2021

The FSU Department of Computer Science became re-designated as a National Center of Academic Excellence in Information Assurance/Cybersecurity Education and in Cyber Defense Research for the academic years 2014 through 2021.

To achieve this designation, the Department demonstrated that it has a robust and active Information Assurance/Cyber Defense academic program, as well as encouraged student-based cybersecurity research, that the approach to IA/CD was interdisciplinary, that IA principles were put into practice as well as taught, in addition to several other criteria.

Professors Mike Burmester and **Xiuwen Liu** lead the Department's program, and Professor Mike Burmester heads the Center for Security & Assurance in IT (C-SAIT).

Professor Receives Fulbright Award

FSU's Department of Computer Science faculty member, **Dr. Piyush Kumar**, was recently honored with the distinction of receiving this year's Fulbright American Scholar Award. This program was established to increase mutual understanding between the people of the United States and other countries through the exchange of persons, knowledge, and skills. There are over 8,000 grants given annually to undertake graduate study, advanced research, university lecturing, and classroom teaching. As of 2013, more than 325,400 persons—122,800 from the United States and 202,600 from other countries—have participated in the program since it began.



Three faculty members named associate editors for top research journals in Computer Science

Three faculty members from our department have been recently named associate editors for top journals in Computer Science: Professor David Whalley for ACM Transactions on Architecture and Compiler Optimizations (TACO) from 2013, Professor Robert van Engelen for IEEE Transactions on Service Computing (TSC) from 2013, and Professor Michael Mascagni for ACM Transactions on Mathematical Software (TOMS) from 2014. Serving as editors for these top journals indicates that our faculty are highly regarded by their peers in the computing community.



Dr. Aggarwal elected Mainline Information Systems Professor



Dr. Sudhir Aggarwal was elected as this year's Mainline Information Systems endowed professor. This designation carries with it a monetary award to be allocated toward future uses. Dr. Aggarwal has shown his passion for our department for over a decade. His current research interests are in password cracking and digital forensics. His previous research includes topics in computer and communication networks, and cyber security software. He is the first professor endowed in several years. Mainline Information Systems designs and supports IT solutions that help businesses increase their effectiveness.

Prof. Gary Tyson awarded Harris Professorship



This year, **Dr. Gary Tyson** has been elected as the recipient of this year's Harris Professorship. Dr. Tyson has exemplified the tenacity and dedication the department seeks in all of its faculty and staff. His research goes in depths into the ins and outs of compiler architecture and cache organization for future technologies. Companies like IBM and federal agencies, such as NSF, have all played a role in funding his research efforts.

CS Receives Department NSF IRES Award

The Computer Science Department was recently awarded a National Science Foundation (NSF) International Research Experience for Students (IRES) grant, which is the first NSF IRES award received at the university. This \$250,000 award will provide support to send a cohort of five FSU Computer Science graduate students to Chalmers University of Technology in Gothenburg, Sweden for 10 weeks during the summers of 2015, 2016, and 2017. The general research theme proposed for the FSU IRES program student research at Chalmers is Efficient and Secure Mobile Systems. The first set of FSU Computer Science students who will visit Sweden during the Summer 2015 semester are Ryan Baird, Carlos Sanchez, Mark Stanovich, and Zachary Yannes.



From left: Haiduc, Yang, Vastola, Ackerman, Yu, & Carnahan.

CS WELCOMES NEW FACULTY MEMBERS

Please help us welcome several new faculty members to the Computer Science department, each coming with years of computing experience in various fields.

Our first new faculty member is **Sonia Haiduc**. Sonia Haiduc is an Assistant Professor in the department. Her research is in software engineering, focusing on software maintenance and evolution. She received her Ph.D. in 2013 and M.Sc. in 2009 from Wayne State University in Detroit, MI under the supervision of Dr. Andrian Marcus. She completed her B.Sc. in 2006 at the Babes-Bolyai University in Cluj-Napoca, Romania.

Our second new faculty member with familiarity around the department is **Melina Vastola**. Ms. Vastola has been a member of the teaching faculty at Florida State University's Computer Science Department since January 2014. She holds a Master's degree in Information Security from Florida State as well as a bachelor's degree in Computational Biology. Melina is also honored to have been the Harris graduate fellowship recipient for 2012 and 2013.

Another recent faculty member introduced to the department is **Margareta Ackerman**. Dr. Ackerman received her PhD from the University of Waterloo. Before joining FSU, she was a Postdoctoral Fellow at Caltech and at the University of California, San Diego. She joined FSU as an Assistant Professor in 2014. She is a world expert in theoretical foundations of clustering, and bridging theory and practice in this domain.

Our fourth recent faculty member is **Jie Yang**. Dr. Jie Yang received his Ph.D. degree in Computer Engineering from Stevens Institute of Technology in 2011. From 2011 to 2012, he was a postdoctoral fellow in the Data Analysis and Information Security (DAISY) Laboratory at Stevens Institute of Technology. From 2012 to 2014, he worked as an Assistant Professor in the Computer Science and Engineering Department at Oakland University, Michigan. He joined the Florida State University as an Assistant Professor in late 2014.

Ms. **Caitlin Carnahan** joined the department as a specialized faculty in Spring 2015. She holds a Master's degree in Computer Science from Florida State and two bachelor's degrees in Physics and Computer Science. Her interests include a wide range of theoretical aspects in Computer Science including algorithms, complexity classes, theory of computation, and machine learning.

One of the department's new hires is **Dr. Weikuan Yu**. Dr. Yu is joining Florida State University as a tenured Associate Professor in the Department of Computer Science. He has broad computational interests including social networking, data, and I/O systems. He was a Research Staff Member at Oak Ridge National Lab until 2009, and an assistant and associate professor at Auburn University until 2015. Dr. Yu is also a senior member of IEEE and member of ACM and USENIX.



FSU FOUNDATION
www.foundation.fsu.edu
Computer Science Fund

HOW TO CONTRIBUTE

If you would like the opportunity to reconnect with Florida State and the Department of Computer Science, you can make contributions by check, credit card, or bank draft through the FSU Foundation. One-time gifts or donations are extremely beneficial and make a tremendous difference in our efforts.

For online gifts, go to
<https://one.fsu.edu/foundation/donate/give-online>.

Under "**Designation**" click on "**More Designations**". In the '**Fund Description**' box, enter '**Computer Science Fund**' (without quote), and/or in the 'Fund #' box, enter **F00068**, then click Search. In the Search results, click on '**Computer Science Fund**'.

To mail a contribution and pay by check, money order, or credit card, go to
<https://one.fsu.edu/foundation/donate/give-online> and print the form.

For more information on how you can donate to the Department of Computer Science please contact Nancy Smilowitz or Jeff Ereckson in the College of Arts and Sciences.

Mail your gift along with the form to:
The Florida State University
College of Arts & Sciences
Attn: Nancy Smilowitz
125 Convocation Way
Tallahassee, FL 32306-1280

Nancy Smilowitz
 Office: 850-644-9324
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 E-mail: jereckson@foundation.fsu.edu

FSU ALUMNI EVENTS

FSU CS DEPARTMENT HOLDS 2015 CS EXPO



Elizabeth Belding
Featured Speaker

Belding is a Computer Science Professor at UC Santa Barbara. She is an ACM Distinguished Scientist and an IEEE Fellow. She is also founder of the MOMENT Laboratory.

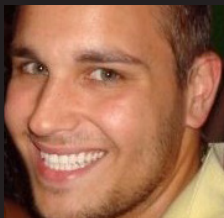


This one-day event set up an open forum that featured technical talks, research presentations, demos, and posters by computer science students. There is a “Grad-Made-Good” talk by this year’s keynote speaker Prof. Elizabeth Belding from University of California, Santa Barbara; and a series of invited talks from the IT industry, such as Microsoft, Harris, and Intel. Alumni and friends of the Computer Science department participated in the event to share post-graduate experiences and opportunities for our students.



Catheryn Logan

Logan is a Photonics Technologist for the Harris Cooperation. While at Harris she has supported multiple departments from Test, Mechanical Analysis, Microelectronics; and Optics and Photonics.



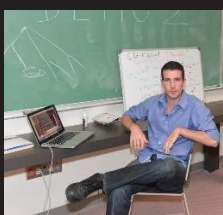
Frank Sposaro

Frank is a former FSU student now working for Microsoft as a software development engineer. He received his PhD in 2015.



Daniel Faraj

Daniel received his PhD from FSU in 2006 before joining IBM to work with the IBM “Blue-Gene.” He joined Intel Corporation as a senior performance architect.



Clark Wood

Clark earned a MS at FSU in 2014. He was a SFS recipient and spent time working as an associate at MIT Lincoln Laboratory.

Five Students Receive GAANN Awards For 2015

At the department’s annual Honors and Awards ceremony held April 17th, GAANN (Graduate Assistance in Areas of National Need) Fellowships were announced. The goal of GAANN grants is to support students with excellent academic records and promise for a successful career in research and education. Fellowships were awarded to the following students; Ashleigh Davis, Britton Dennis, Randy Flood, Chris Ogden, and William Thrasher.

SUS Board of Governors funds \$3 Million FITC Partnership

The SUS BOG awarded a five-year grant to FSU for collaborative higher education projects in the state. This was one of four grants totaling \$15 million by the BOG, designed to encourage more students to pursue careers in high-need areas. The CS department received the funds to create two specialized faculty lines and one specialized faculty line for CS at the Panama City campus. In furthering our partnership with the FSU Career Center, the CS department added student career advising staff members. FITC is a partnership between the Department of Computer Science (Principal Robert van Engelen, former Chair), College of Communication and Information (Principal Larry Dennis, Dean), the Florida A&M-FSU College of Engineering (Principal Simon Foo, Chair) and Florida A&M University’s Department of Computer and Information Sciences (Principal Edward Jones, Chair).

STUDENT AWARDS

CS Department Announces ACM Programming contest winners for Fall & Spring

The ACM Programming contest is held every year in the CS department. ACM is the most prestigious computing society in the world. With over 100 members at our FSU chapter, we are proud to announce the winners for the Fall 2014 and Spring 2015 programming contest. (Fall 2014) First Place: David Lafontant, Ryan Baird, Kevin George, Second Place: Todd Ryks, Third Place: Sean Freeman, Fourth Place: Daniel Mock, Aasin Jamil, James Owens.

2015 Scholarship For Service Recipients Highlighted at Honors Banquet

Focused on Information Assurance education, the Scholarship for Service program gives students scholarship funds in exchange for service in the federal government. At our annual honors banquet, we honored those chosen for this year's SFS scholarship. The names include; Lindsay Barlett, , Nicholas Clark, Andre King, John McLaughlin, Lauren Pearce, Thomas Rollinger, Matt Share, Tyler Travis, Scott Wallace, Clark Wood, and Doug Wussler.

CS Students Receive Harris Corporation Awards

Several students received Harris Corporation awards this past year. Each student gets an award of \$4,000 annually if they can receive a US security clearance. Summer internships at Harris Corporation are available and encouraged for awardees. This year's recipients of the award are John Travis Chung, Graduate Fellowship, Jared Bennett, Undergraduate Scholarship, Alexander Damiani, Undergraduate Scholarship, Tyler Kelly, Undergraduate Scholarship, Andrew Sosa, Undergraduate Scholarship



Two Students Awarded 2015 Carl and Ermine Owenby Scholarships

We are pleased to announce two students were chosen to receive the Carl and Ermine Owenby Scholarship this year. Mr. Carl Owenby presented scholarship awards to the two students at the department's annual Honors and Awards ceremony held April 17th. This year's Owenby Scholarship recipients were **Chris Weathers and Alexander Petrov**. This scholarship is awarded to undergraduates who are financially at risk.



Honors Banquet awards NSF S-STEM Scholarship Recipients

Funded through grants from the National Science Foundation, S-STEM scholarships are offered to academically-talented students to address the shortage of labor and women and under-represented groups in computing. For 2014 recipients include: Richard Allen, Jessalyn Aretz, Grace Bunch, Brianna Danois, Ariana Maria Davis, Michael Gunter, Tatiana Joseph, Ashley Roberts, Nicholas Kelton, Bayan Kharanzmi, Madison Lizek, Miguel Mejia, Malachi Parker, Zachary Pell, Alexander Petrov, James Picker, Taylor Shields, Remington Trettin.