



Southeast Missouri State University

Department of Computer Science

Alumni Newsletter – Fall 2020

A Byte of Department News

Alumni and Friends of Computer Science,

You will be happy to know that the department remains strong. COVID-19 had a smaller than anticipated impact on enrollment (555 majors in the department, only down 3 from last fall), but student preference for course delivery and social-distancing requirements in classrooms moved a few additional courses to online or Zoom delivery.

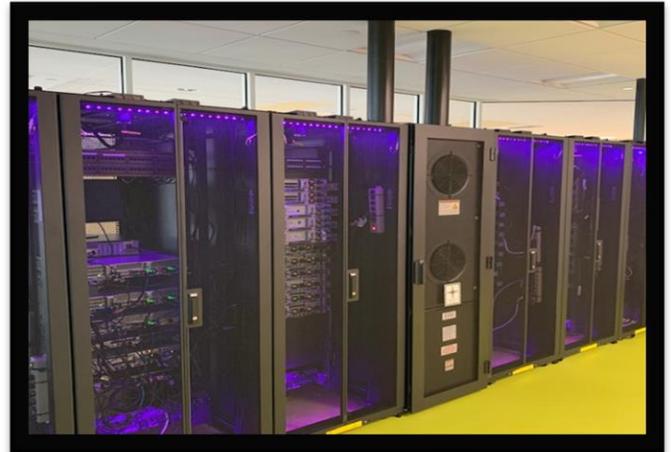
The accomplishments over the past year are many:

- Collegiate Cyber Defense Competition team again won the state contest, for the 8th consecutive year
- Hired two exceptional faculty members – Dr. Bob Lowe (started August 2020) and Dr. Wee Sim (starts January 2021)
- Remodeled the student lab with new computers, modular layout, and collaboration spaces
- Expanded the capability of the Cyber Range to more than 600 processing cores, 30 TB of storage, and 1.5 TB of RAM
- Launched new certificate programs in web development, cloud computing, and cybersecurity

Most importantly, we are proud of our recent graduates for obtaining very competitive placements across the country and globe, such as Amazon, MasterCard, Ameren, and many more, demonstrating they have the skills comparable to graduates from any big-name university.

The department enjoys hearing from you, appreciates your support, and welcomes any feedback or updates you wish to share.

--Dr. Charles McAllister, Interim Chair



Picture Above: Cyber Range Server Room

Fresh Face on Campus

Dr. Robert Lowe joined the department in August as an assistant professor in Computer Science.

Dr. Lowe had his first computing job while he was in high school. He worked for a furniture manufacturer in Knoxville, Tennessee. While there he wrote programs to generate reports and shipping labels. He attended Middle Tennessee State University, where he earned his BS in Computer Science. Following graduation, he worked for a variety of companies. For a while, he worked at various “dot coms”, and then moved on to writing software for government and financial applications. Dr. Bob Lowe also did some freelance consulting. Throughout his industry career, he worked in over 30 programming languages and gained experience with a wide variety of technologies.

Throughout his professional career prior to graduate school, Dr. Lowe taught as an adjunct at various community colleges, and then decided to pursue an academic career. He attended the University of Tennessee, where he earned both his MS and PhD degrees. During the final years of his PhD, he joined Maryville College as an assistant professor and taught both there and at Pellissippi State Community College.

Dr. Lowe's current research interests are tensor analysis and prognostics. In particular, he is interested in applying tensors to the task of natural language processing and analysis. Dr. Lowe's interest in tensors began while working a robotics prognostic problem, and so he wants to return to that work to apply tensor-based time-series to autonomous robotics applications.

Dr. Bob Lowe's favorite part of his new job is the profound sense of community on campus. He has taught at quite a few schools and has never felt so welcomed as he has at Southeast. This is his favorite part because at his last position, he was the only computer scientist on the faculty, which is daunting and lonely! Dr. Lowe is thrilled to be working as a part of a team and is looking forward to many collaborations in both teaching and research in the years to come.

CCDC Team Future is Bright

For the eighth straight year, the Southeast Missouri State University Cyber Defense Team won the Missouri Collegiate Cyber Defense Competition (CCDC). The Southeast team advanced to the Erich J. Spengler Midwest Regional Collegiate Cyber Defense Competition at Moraine Valley Community College in Palos Hills, Illinois. Teams in the Midwest Regional competitions represented Missouri, Wisconsin, Kentucky, Indiana, Illinois, Michigan, Minnesota, Ohio, and Iowa. Due to the COVID-19 restrictions, the team was not able to participate.

Southeast students competing in the Missouri CCDC were Ethan Gyori of Eureka, Missouri; Jack Gavin of Lee's Summit, Missouri; Giovanni Licameli of St. Peters, Missouri; Max Foster of Freeburg, Illinois; Connor Bybee of Carterville, Illinois; Sierra Wetmore of Iuka, Illinois; Gabe Stier of Sherman, Illinois; and Andrew Banning of Salem, Illinois. The team's alternatives are Joseph Kossack of Vienna, Illinois; Jennifer Tenholder of Florissant, Missouri; Elijah Iverson of Bloomington, Illinois; and Quinn Johnson of Weston, Missouri.

For this academic year, the use of the Cyber Range will continue to support mainly the CCDC team and the Ethical Hacking team. Team members will create scenarios similar to what they will expect to find in future local and regional competitions. The goal is not only to win the local and regional competitions, but to advance to the national phase. The team will continue training every week.

Congratulations to Our Students

College Level Awards

Donald L. Harrison College of Business and Computing recognized 2019-2020 Computer Science students with academic awards:

Outstanding Academic Achievement in Computer Information Systems – Emily Cieslewicz

Outstanding Computer Information Systems Student – Osvaldo Sanchez

Outstanding Academic Achievement in Computer Science – Adam Thomas

Outstanding Computer Science Student – Jacob Aufdenberg

Outstanding Academic Achievement in Cybersecurity – Connor Bybee

Outstanding Cybersecurity student – Giovanni Licameli

Outstanding MS in Applied Computer Science – Nisha Shahi

University Level Awards

Computer Science represented the Donald L. Harrison College of Business and Computing with students recognized for University level awards:

Provost Award – Adam Thomas

Experiential Learning – Jack Gavin, Joseph Kossack, and Giovanni Licameli

#WillToDo

Nisha Shahi, a previous graduate assistant in the Computer Science Department, has been recognized for her achievements. Nisha currently works for Element74 located in Cape Girardeau. Her responsibilities as an Application Developer include designing, developing, analyzing, and programming web applications for clients using .NET framework (ASP.NET, C#, AJAX, SQL Server, JavaScript, LINQ and some other modern templates and architecture). Nisha also writes code for testing and analyzing existing and new applications. She works with other team members to identify and solve problems. Another responsibility of Nisha's is to

research and implement new technologies that will benefit the company.

Nisha compliments the Computer Department for her growth from a modest young girl to a confident woman. Joining SEMO for her master's degree was a life changing experience. Nisha says, "The courses offered here have helped me take both theoretical and practical learning side by side." Since then she has felt competent in the skills and techniques to qualify for jobs. Looking back, Nisha can say with absolute certainty that being a graduate assistant in the CS department has been a highlight of her time at SEMO. It has empowered her to learn, grow, and so much more. It has helped her build professional experience during her collegiate career.



Connor Bybee is employed at Motorola Mobility, Android device manufacturer, as a Software Engineer in Security. He is responsible for updating and bug fixing scanning tools. The scanning tools that he maintains are used to check for vulnerabilities and compliance with standards from Google and Motorola. He also reviews security codes for mobile applications at Motorola Mobility.



When asked what prepared him for this position, he stated, "The major thing that comes to mind is my involvement in the ICPC group. The problems that we had to solve for this competition really helped with the problems that are

encountered during interviews and at my job. Also, the professors always had time to meet and help if needed outside of class."

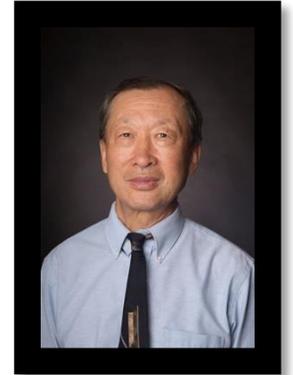
On a Parting Note. . .

The Department of Computer Science announces with delight and sadness the retirement of Dr. Xuesong Zhang after 20 years of service to our students.

His journey began in China where he graduated in a Bachelor's in 1975. After many years of teaching and further education, he relocated to the Cape Girardeau area to attend Southern Illinois University in Carbondale. He was a teaching and research assistant while earning a doctorate. He would then

become a researcher before coming to Southeast in fall 2000.

Dr. Zhang has been a valuable member of the Computer Science department. He assisted with revising undergraduate programs and developing graduate programs in the department by creating new courses for the curriculums. He continued to be involved in research projects that sometimes were partnered with universities in the U.S. and China. Memberships in professional organizations include ACM SIGCSE, International Society for Computers and their Applications, Institute of Electrical and Electronics Engineers, Computer Society of Institute of Electrical and Electronics Engineers, Communication Society of Institute of Electrical and Electronics Engineers, Education Society of Institute of Electrical and Electronics Engineers, and Instrumentation and Measurement Society of Institute of Electrical and Electronics Engineers. Service on various level of committees and faculty search committees are too numerous to mention.



With all these accomplishments, he did not lose focus on the meaning of being a faculty member: preparing students for success in the industry. Many students received recommendation letters of support from him. He served as academic advisor to countless majors and as the faculty advisor to the Computer Science Club.

Thank you, Dr. Xuesong Zhang, for your service and support to our students at Southeast. We hope you enjoy your well-deserved retirement.



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