NOVEMBER NEWSLETTER

Anderson University

Department of Computer Science

NEW FACULTY JOIN THE CPSC DEPARTMENT

This fall we were blessed to add two new faculty members to the department.

Jason Lowmiller joins us as an Assistant Professor of Cybersecurity, bringing experience working in DevOps, systems and network administration, development, and cybersecurity. He completed a BS in Business Information Systems degree at Indiana Wesleyan University and an MS in Cybersecurity at Bellevue University.

Jon Craton has worked as a software engineer, consultant, and also worked alongside college students in residence life and student programs. He completed his BS in Computer Engineering and MA in Higher Education and Student Development from Taylor University, and he is currently completing his graduate work in Computer Science from Dakota State University.

Number of 2019-2020 Seniors:

12

Majors:

Computer Science, BA (7)
Computer Science, BS (2)
Information Security (1)
Business-Information Systems Complementary Major (3*)
*one student is double majoring in IS+BIS

% who have already received a job offer:

50%

% women:

42%

% minorities:

33%

Chuck Koontz, Jim Ostrognai, and John Pistole

TECH TALKS EXPOSE STUDENTS TO INDUSTRY TOPICS

For the last two years, Tech talks have been bringing a glimpse of industry to our undergraduate students. Fall semester tech talks included:

- **Jim Ostrognai**, VP of Engineering, Salesforce, *LifeHacks (Things I wish someone would have told me when I was at AU)*
- **Bob Huba**, Former System Security Architect and team lead for the Security Incident Response Team at Emerson Automation Solutions, *Critical Infrastructure CyberSecurity - Using the Internet to make things go Boom*
- **James Weaver**, Quantum Developer Advocate, IBM, *Quantum Party Tricks: An entertaining introduction to quantum computing*
- And presentations of their internship work by interns working at our on-campus internship centers: **Genesys** and the **Ontario Systems CUBE**, which are located on the 3rd floor of Decker Hall.

The Ontario Systems CUBE Internship Center

The Genesys Internship Center

FACILITIES IMPROVEMENTS

Based on advice we received from our industry partners, we have incorporated more team-based development into our program. In **Software Engineering** and **Senior Design Capstone I & II**, we have students work in teams, following the **Agile Development methodology**, using common source code management and issue tracking software. This change has presented challenges due to the traditional computer-lab-lecture-setup of our classrooms. This semester, we used alumni donations saved over several years to **improve the facilities in the Decker 351 classroom**. The room has been upgraded with new glassboards, projector, and monitors (the computers were removed), and new tables should be arriving over Christmas break. The tables allow the space to be reconfigured to allow groups of 6-8 students to work together effectively. Pictures of the finished space will be shared in the next newsletter!

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STUDENT PROJECT WORK

As mentioned above, students have the opportunity to work on real-world projects in both Software Engineering and Senior Capstone. In SE, the students have been working on two teams to develop apps of their own creation: a location-based student messaging app with clients on Android and web browsers. In Senior Capstone, the students are working throughout the year for two clients. One group is building a registration, payment, and tracking platform for Fairmount Camp, a Christian camp near campus who was struggling with managing their services. The other group is working with our own Tri-S office, to streamline the student experience with registering for Tri-S trips, and move the registration process from being primarily paper-based to being managed through a single web-based application. The experience of having actively involved clients and developing software to meet a real need is a wonderful learning process, where the students are wholly invested in the work that they are doing.

HOW YOU CAN HELP

We are seeking alumni who have experience in the following areas to "vet" the student applications:
- electronic signatures for documents including medical forms and liability waivers
- secure management of HIPPA and FERPA data
- secure electronic payment management

If you would like to help, we'd appreciate your advice! **Contact Dr. Jen Coy at jjcoy@anderson.edu**

TOM'S CORNER
by Tom Harbron

Tom was the first department chair of the Computer Science Department, and taught at AU for 38 years before retiring.

The first digital computer I ever used was a physically large machine that was hand-built by faculty and craftsmen at Iowa State University. It was called "Cyclone" in deference to the Iowa State mascot, and the then amazing speed with which it crunched numbers. It was in a cabinet that extended from floor to ceiling, was about three feet deep and twenty feet long. It was filled with 2700 vacuum tubes. A new, two-story brick building was constructed to house it and its supporting systems which included programming and data preparation offices, and a large maintenance department where several technicians worked full time to keep Cyclone running. The computer was on the second floor and the part of the building directly below it was devoted to a large air conditioning system which forced air cooled to 60° into the bottom of the computer frame. When that air exited at the top, one second later, it had been warmed to 90° by heat from all those tubes!

This machine, and its building cost several million dollars in 1959. Today, I carry in my pocket a computer in the form of an iPhone. My iPhone is 150,000 times faster, has ten million times as much memory, and 100,000 of them can be bought for what that early computer cost. Cyclone communicated with people via punched paper tape while my iPhone has more than a million full-color pixels plus sound. We have come a long way in sixty years and I marvel to think where we might be in another sixty years.

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