ALUMNI NEWSLETTER



Anderson University Department of Computer Science

September 2020

Celebrating Seniors

This year, we were proud to name three seniors as Departmental Honors Recipients: Stephanie Maynard, Davis Peterson, and Joy (Shaffer) Peters. The recipients of this award embody academic excellence and show a heart for service.

Davis Peterson was also selected as the Harbron Scholar recipient, for excellence in academic performance. The award is funded by the Harbron Endowed Scholarship Fund, and is given to a senior each Fall.

We were also proud to see that Sarah Rozzi was awarded the Orr Fellowship, one of just 70 fellows selected from over 1300 applicants! Sarah is working for Allegion in UI/UX design through the Orr Fellowship Program.

We had a truly outstanding class of seniors this year!



Top Left: **Stephanie Maynard**, B.A. Computer Science, Management minor Top Right: **Davis Peterson**, B.S. Computer Science Bottom Left: **Joy (Shaffer) Peters**, B.A., Computer Science Bottom Right: **Sarah Rozzi**, B.A., Visual Comm and Business Information Systems

A spring semester like no other

As you probably heard, after Spring Break, on March 23rd, AU switched classes to virtual mode, due to the coronavirus pandemic. The abrupt switch to "pandemic online learning" was made relatively smoothly for our department, and the semester proceeded onward with few hiccups. Adjustments include a plethora of Zoom times and Google Meets, online submissions of homework, labs, projects, and exams through Canvas, and lots and lots of email. Definitely not an ideal way to conclude the semester, especially for Seniors, who missed all the celebrations of their hard work.

Spring Tech Talks

Prior to the pandemic, we were able to offer 3 Tech Talks:

- Eric Spence, Genesys, "DynamoDB: Fully Managed NoSQL"
- Robbie Page, E-gineering, "Ship It (DevOps)"
- Tom Harbron, Emeritus faculty, "The Timeless Value of a Liberal Arts Education"



We ended up canceling 2 Tech Talks:

- John Rice, Salesforce, "Cybersecurity"
- Tyler Foxworthy, Vertex Intelligence, "The Shape of Data -- elementary principles of TDA combined with information theory to profile datasets."

Left: Robbie Page from E-gineering introduces students to DevOps and its advantages

Planning for the unknown

Like every other university, we have spent the summer planning for the unknowns that the Fall Semester will bring. We are certainly grateful to have a battle-tested leader like President Pistole at the helm, and he has assembled a great team to make the fall semester as successful as possible. As he said in his <u>USA Today</u> <u>column</u>, "We can never eliminate all risks, but we can manage them, and in a way that allows students to still be students."

For more information on the AU Return to Campus plan, visit <u>https://anderson.edu/coronavirus/</u>.



Above: #CoverYourBeak campaign to Mask Up across campus.

Anderson University awarded \$1 million dollar Lilly Grant

We're excited to announce that AU has received a million dollar grant from the Lilly Foundation! This grant will directly benefit the Computer Science department (both Cybersecurity students and Computer Science students), along with the National Security majors. President Pistole was recently featured on Inside Indiana Business, talking about the grant. You can see the interview here: <u>https://bit.ly/32lhRHT</u>. Also, here is the blurb about the CSSCD that will eventually be featured on the forthcoming website.

The Center for Security Studies and Cyber Defense (CSSCD) was established through a \$1 million dollar Lilly Endowment Grant to support both the mission of Anderson University's Security Studies Program and the surrounding community.

First, the CSSCD supports the mission of Anderson University's Security Studies Program to develop a pipeline of graduates with excellent technical skills, strong Christian ethics, and a desire to serve on the front lines in defending the nation, our communities, and institutions from threats, foreign and domestic, in both the physical and cyber realms. The program consists of interdisciplinary majors in Cybersecurity and National Security designed to help our students develop an understanding of security policy (national, homeland, and cyber), technical skills through experiential learning, and a set of professional ethics from a Christian-faith perspective.

Second, the CSSCD supports the surrounding community by providing a number of low-cost or no-cost security services to local and regional constituents. These services include:

- Cybersecurity audits, monitoring network traffic through a Security Operations Center (SOC), and digital or physical penetration testing.
- Table-top exercises for testing organizational responses to security threats such as ransomware attacks, data breaches, or catastrophic events.
- Training and certification for the local workforce through workshops and seminars taught by security studies faculty, CSSCD staff, and field experts.
- Conferences and publications to keep our constituents informed about current security threats and the tools and practices designed to address them.

As a Christian, liberal arts institution, the mission of AU is to educate for a life of faith and service in the church and society. The CSSCD challenges our students and staff to use their expertise in ethical and constructive ways, while equipping students with the knowledge and skills that can be used to preserve and promote security in every sector of American society. Students will utilize their critical thinking skills to discover solutions to complex problems through creative and ethical innovation and apply their technical skills through the various services offered by the center.

The position of Executive Director of the CSSCD is posted here: <u>https://anderson.edu/hr/faculty-staff-employment/</u>

Please share with anyone you think would be interested! We'd love to have a director in position by December.



Ugly Christmas sweater, anyone?

A little fun was had around the department at the end of Fall Semester. Junior Alex Ross (B.S. in Computer Science major) found these wonderful (?) Ilama Christmas sweaters, and thought it would look perfect on Prof. Koontz.

The two of them would make quite the scene in the department, lending a festive atmosphere!

The Koontzshaped laptop stickers were also a hit with students. Maybe for Christmas this year, we'll make a llama version!





Genesys Alumni

Trent Palmer, Director of Alumni Relations, organized a reunion of sorts at Genesys, in November. There are an amazing number of alumni who work at Genesys! Want to play "Where's Waldo?" the CS version? Can you find Chuck Koontz in the photo below?



Above: A pre-COVID gathering of the AU alumni who work at Genesys in Indianapolis, including current interns.

The Harbron Experiential Learning Center

On March 5th, Tom Harbron was scheduled to give a Tech Talk entitled The Timeless Value of a Liberal Arts Education. To his surprise (though everyone else was in on it), we also dedicated Decker 351 as the new *Harbron* Experiential Learning Center. The former Harbron Lab was recently remodeled into the Ontario Systems CUBE internship center. Generous gifts from our alumni allowed us to update 351 into a space that supports learning in an Agile





group environment.

THE HARBRON EXPERIENTIAL LEARNING CENTER



The Learning Center is made possible by Tom Harbron's 38 years of dedicated service to Anderson University's Computer Science Program. His vision established the foundation for the success of hundreds of Computer Science alumni, making a positive impact in the world. Tom was the founding member of the CS department, Chair for many years, served at AU for 38 years, endowed a scholarship for CS seniors, and has been a vocal advocate for the department. During his time at AU, Tom implemented the first physics major, as well as the first computer science major and minor, established the computing center here, arranged for the donation of the first ever computer used at AU, and was instrumental in many other areas. He is well-beloved of alumni.

There were approximately 40 people in attendance at the dedication, and a number of area alumni were also able to come. We were happy to see Eldon "Lynn" Habegger '80, Kevin Branch '93, Arnold Patton '87, Paul Harbron '92, Ben Harbron '99 and wife Nicole "Nikki" (Meissner) Harbron '99. Current students enjoyed networking with former students, and cleared out every single slice of pizza in the room.

Top right: Tom Harbron giving the Tech Talk entitled "The Timeless Value of a Liberal Arts Education"

Middle left: A Concannon's Bakery cake led a festive aspect to the celebration

Bottom left: A bronze plaque was commissioned to be hung in the hallway, designating the space.



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

Computer Science Faculty

Dr. Jennifer Coy

Chair, Professor jjcoy@anderson.edu

Charles Koontz

Associate Professor koontzcb@anderson.edu

Jason Lowmiller

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Jon Craton

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Brian Schultz Adjunct Professor bschultz@anderson.edu

Design By

Sarah Rozzi Class of May 2020

Tom's Corner

By Tom Harbron

In the last newsletter I contrasted the "Cyclone" computer built at Iowa State University in the late 1950s with modern machines. For its time, Cyclone was a remarkably transparent computer. While punched paper tape was its main source of input and output, there were other ways that it communicated. There was a small CRT on the mainframe which displayed all of the machine's 1024 words of memory (40 bits each) in a 32 X 32 array of dots. A 40-position switch selected which bit in each of those 1024 words was being displayed. A zero was dim dot while a one was brighter. When that memory word was being addressed, the dot grew much brighter. Thus it was possible to see which instructions and what data were being accessed in real time. Short program loops glowed brightly while longer ones were dimmer. Programmers knew where everything was located in that small memory and could "see" what the program was doing.

Due to the slow speed of that early machine, loops usually could repeat only a few hundred times per second. An audio amplifier was connected to the sign bit of the accumulator and hooked to speakers located throughout the building. As programs ran, Cyclone "sang" with a music of tones, beeps, and squawks unique to each program. Programmers and researchers listening to Cyclone's song could tell in an instant if their program had run amok, or stopped. A maintenance program with the colorful name of "Orange Leapfrog" was run for several hours each morning and played a kind fugue which I can still hear in my head. Our computers communicate with us, and with each other, much more effectively today, but seldom let us peer inside their minds nor do they sing original songs for us.



(left to right): Charles Koontz, Jon Craton, Jennifer Coy, and Jason Lowmiller