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Next-Generation Effective Affective Technology
- Dr. Shameem Ahmed and Dr. Moushumi Sharmin

The NEAT (Next-generation Effective Affective Technology) Research Lab focuses on designing technological solutions for mental and behavioral health challenges. This lab was started in 2016 by Professors Shameem Ahmed and Moushumi Sharmin.

Numerous interdisciplinary projects are underway involving undergraduate and graduate students at Western, collaborating with partners at institutions around the globe. Some of the projects coming from the lab include MyQuitPal and InterViewR. MyQuitPal is a mobile application developed to aid smoking cessation. This project was presented to legislators in Olympia at their annual Undergraduate Research Day in 2018, and also garnered a second place award at the ACM Undergraduate Research Competition at the Grace Hopper Celebration in 2017. MyQuitPal helps smokers by identifying locations or circumstances that cause relapse and can predict when smokers are susceptible to smoking in near real time. InterViewR is a mixed-reality interview training platform that allows individuals on the autism spectrum disorder go through a technical interview virtually. InterViewR offers real time and post-training feedback on participants' performance to help identify areas of improvement. The InterViewR prototype was evaluated by career counselors at the Career Services Center at Western and will be deployed for student use in 2019. All of the projects coming out of the NEAT lab have students engaged in data collection, analysis and modeling to build technical solutions for socially impactful results. Many projects culminate in publication in international conferences and journals. Alumni who graduated from the lab are employed at Amazon, eBay, FAST, InfoSys, and other leading technology companies.
Last year, right before this newsletter hit the press, Professor James Johnson passed away suddenly at his home. Winter quarter was a sad time around here and we still miss Jim constantly. His family gave an incredibly generous contribution to create the James Lee Johnson Memorial Endowment, from which we will award scholarships to CS students this year, and every year going forward. It’s a fitting legacy for a great man and scholar. On the back page of this newsletter there is a link where you can contribute to this endowment.

We welcomed a new faculty member to the department in Fall. Scott Wehrwein earned his PhD from Cornell and specializes in computer vision. He fell in love with the Pacific Northwest during a summer internship at Facebook in Seattle. He seems to have adopted the mentality that there is no such thing as bad weather, only bad gear, and can be seen biking to work well-outfitted for the winter weather. I’m sure Dr. Johnson is smiling from above.

In June we honored the retirements of Dr. David Bover and Dr. Chris Reedy, and Dr. Geoff Matthews retired in December. Geoff will still be around using his Spanish language skills to help connect local Hispanic communities to Western’s CS Department. Not only does Geoff speak Spanish but the other day I saw him singing in Tamil in the department office for a performance with the Kulshan Chorus he recently soloed in!

All these departures mean we are recruiting several new faculty to start in September. We have one position in CS Education and three other general CS positions. I’m calling it Winterview Quarter! As always, I have a lot of excitement for hiring, and enjoy meeting all the great candidates visiting campus this winter. Additionally, we hired Dr. Dustin O’Hara to start in September as the new director of our Internet Studies Center.

Finally, thanks to all the alumni who came to the first annual WWU CS Happy Hour in Seattle in October, 2018. It was a massive success. I know many people wanted to come but missed out for one reason or another. Look out for the next one; stay apprised of future happy hours by connecting with us on Facebook, Instagram, and LinkedIn.

Wishing you a happy and healthy 2019,

- Dr. Perry Fizzano

Promotions

WWU’s CS Department is excited to announce the tenure and promotion of Brian Hutchinson, Yudong Liu, and Filip Jagodzinski to Associate Professors!

This accomplishment is a result of their continued excellence in teaching and research, and their sincere focus on the success of their students.

Congratulations!

Dr. Brian Hutchinson
Dr. Yudong Liu
Dr. Filip Jagodzinski
Dr. Scott Wehrwein

I received my B.A. in Computer Science from Middlebury College in Vermont, where the beautiful scenery inspired me to pick up photography as a hobby and computational photography as a research area. After a brief stint in industry, I went on to get my PhD from Cornell University in Ithaca, NY, working on problems like using shadows to tell what time a photo was taken, segmenting objects in videos, and visualizing motions at multiple timescales in timelapse scenes. My research going forward focuses broadly on making cameras smarter, leveraging both deep learning and physics-based vision to develop new tools for creating and editing photos, videos, and emerging media such as augmented and virtual reality. Outside the office, I like cooking, baking sourdough bread, and visiting the mountains. I’ve been spending a lot of time trail running in the Chuckanuts, hiking in the North Cascades, and now gearing up for ski season.

Dr. Geoffrey Matthews

Geoff began teaching at Western in 1985, after teaching in South Carolina and working in California in the aerospace industry. He has since conducted research in artificial intelligence, data mining, visualization, graphics, gaming, and scientific applications. He plans to spend even more time on his favorite research areas in retirement, writing books instead of papers. He’s also buying a camper van and intends to spend time camping and touring Canada, Mexico, and the U.S. His latest philanthropic project is focused on outreach to the Hispanic community, hoping to increase minority representation in computer science.

Dr. Chris Reedy

The year was 2004 when the CS department moved into the newly constructed Communications Facility and hired a mathematician (Chris) who would apply his extensive experience working in “industry” to mentoring students throughout the senior project sequence. Chris continued coaching, forming and preparing students for the annual International Collegiate Programming Contest. To kick off retirement after the Spring quarter 2018, he embarked on an Alaskan cruise.

Dr. David Bover

David arrived in 2002, serving as Chair from day one through 2010, then as Associate Dean from 2011 through 2014. David had steady involvement with ABET accreditation, created the Cybersecurity program and the annual Cyber Defense class, and enjoyed coaching the students competing in the Pacific Rim Collegiate Cyber Defense Competition. When his Summer 2018 courses were over, David headed off for Australia, starting with some light island hopping in England, Ireland, and Scotland.

- Mary Tully
New Club Spotlight

National Society of Black Engineers

All too often, students from underrepresented minorities are swayed away from pursuing science and engineering fields. In 2016 it was reported that only 8.6% of the Bachelor of Science degrees awarded were received by black students. STEM is an ever-changing field and I believe that if we want to use science to engineer effective solutions to global issues, we need to look at the problem from diverse perspectives.

The WWU chapter of the National Society of Black Engineers (NSBE) is a group for students pursuing any science or engineering field on campus. We envision a community where students, especially marginalized students, feel supported in their academic endeavors, regardless of their background. Our chapter supports the national vision of a world where all black students can picture themselves as engineers; but most importantly, a world where science is mainstream within our larger community.

We officially kicked off our NSBE chapter Spring 2018 with a social event attracting around 50 students. We’ve collaborated and hosted numerous events and workshops, have an internal textbook lending system, and organize study groups and study sessions for our members. Considering some members are first generation college students, we want to ensure each student has the tools necessary to succeed academically and pre-professionally. We recognize the world of science and engineering is broad and intersects with different disciplines, so we aim to bring awareness to potential career paths through our efforts. Science and engineering are the future, so we want to prepare our members to make a positive impact.

Feel free to connect with us via email at nsbe.wwu@gmail.com

- Selome Zerai

Artificial Intelligence Association

The Artificial Intelligence Association (AIA) is a new club co-founded by Sakari Woods (CS) and Amy Bromley (Accounting/MIS) in Winter 2018, working to bridge the gap between Computer Science and Business by asking the “why” and “how” of emerging and cutting edge technologies. Anyone is welcome regardless of prior knowledge or coding experience. The club focuses on collaboration, providing multidisciplinary workshops and conversations to solve problems and scenarios. Each meeting examines the potential pitfalls and growth opportunities of using artificial intelligence (and other modern technologies) for current and future business environments. There’s also a team creating a project per quarter for a company, providing real-world experience of the software development life-cycle. This club is for thinkers and developers, and is creating a community of like-minded friends who enjoy discussions and activities, and taking a look at the big picture of AI.

- Sakari Woods
Our cybersecurity team recently traveled to the Pacific Northwest National Lab in Richland to compete in a nation-wide cybersecurity event. From this two-day event, the team took 6th nationally, 2nd in the region, and 1st in Washington State. Their 2nd place finish in the Pacific Rim Collegiate Cyber Defense Competition (PRCCDC) in 2018, and now 2019, bodes well for the 2020 competition.

Cybersecurity programs at Western are in high gear. Early applicants indicate enrollment will continue to rise and we’ll see students from most of our partner schools. The seven schools with which there are currently articulation agreements in place include Whatcom, Olympic, Peninsula, Edmonds, Highline, and Green River community colleges, as well as the Lake Washington Institute of Technology. The spring of 2019 will see the first Cybersecurity B.S. graduate from the program in Poulsbo. Now in the second year, this program is small but growing. Currently it includes transfer students from Peninsula and Olympic Colleges, and for next year we have applicants from Whatcom Community College. Poulsbo also offers a Cybersecurity Certificate. This four-course sequence is available to students from other majors who want to learn about cybersecurity and its applications. Current students in this program are from the business major, and their feedback has been positive and encouraging for the future growth of the program. The first students will receive their certificates this spring.

It is important to get as broad of an involvement in cybersecurity as possible throughout the Western community. Two ways this is being done include our CSCI 463 course and the new Cybersecurity and Privacy lecture series. The 463 course is a one-credit course open to all students, and covers a variety of topics in cybersecurity, some of which are not in standard cybersecurity courses and are based on student interest, often reflecting current events in cybersecurity. The Cybersecurity and Privacy lecture series brings in a variety of outside speakers to cover different topics, give their perspectives, and relate cybersecurity issues to various industries. These lectures are open to everyone and generally involve pizza.

- Dr. Erik Fretheim
Scholarship Recipients 2018 - 2019

Top Row, Left to Right:
- Miranda Skar: Cloud Security Alliance Scholarship for Cyber Security
- Yichuan Yin: DocuSign Computer Science Scholarship
- Scott Waldron: David W. Cole Endowment
- Noah Strong: Kaiser-Borsari Educational Foundation Scholarship for Computer Science
- Emerson Powers: Oscar Edwin Olson Scholarship
- Robin Cosbey: Scottish Rite Computer Science Scholarship
- Anastasiya Usenko: Power Up Scholarship
- Jonathan Mooneyham: Computer Science Graduate Fellowship
- David Smith: Faithlife Computer Science Scholarship

Bottom Row, Left to Right:
- Nicholas Majeske: Track Global Fellowship in Computer Science
- Chloe Dawson: Kaiser-Borsari Educational Foundation Scholarship for Women in Computer Science
- Kirsten Basinet: Women in Computing Scholarship
- Kristopher Stewart: Giusti Scholarship for Computer Science
- Christian Careaga: Mark Lockwood Memorial Scholarship Fund & The Oscar Edwin Olson Scholarship
- Kurt Price: Computer Science TAG Scholarship
- Nicholas Strach: Anthony G. Vallot, Jr. Memorial Scholarship
- Alexia Scriven: DocuSign Computer Science Scholarship

Not Pictured:
- Christopher Daw: Dealer Information Systems Computer Science Scholarship
- Simon Haile: Dealer Information Systems Computer Science Scholarship
- Jagganath Natarajan: Computer Science Department Tuition Waiver
- Elizabeth West: Dealer Information Systems Computer Science Scholarship

Citizenship Award Winners
Noah Strong and Chloe Yugawa

2018 Faculty of the Year
Dr. David Bover
Recently Math Professor David Hartenstine and I were awarded a $1M NSF S-STEM grant entitled “Preparing Students for Careers in Computer Science and Math.” The grant funds are aimed to support academically talented, low-income students in their attainment of a bachelor’s degree, and prepare them for their career after college by providing: scholarships, academic and social support, first-year seminar classes, opportunities to develop leadership skills, and regular mentoring. The project team also includes Dr. Regina Barber-DeGraaff, the Inclusion and Outreach Specialist in WWU’s College of Science and Engineering, Dr. Joe Brobst from Old Dominion University, who is performing educational research to understand how the program activities are impacting students, and Dr. Elizabeth Litzler from the University of Washington, who is evaluating whether the grant’s objectives are being met. Furthermore, several recent WWU CS and Math alumni have volunteered to serve as early career professional mentors, meeting with students in the program virtually once a month to discuss topics related to professionalism and career preparation. Several WWU CS and Math faculty and several senior industry leaders are involved as well.

The grant will run for five years and we have 30 students, whom we call CS/M Scholars, involved this year. The number of students we can serve will increase to about 40 CS/M Scholars next year and each year thereafter. Each month the scholars gather for events that build community and promote career readiness. David and I often say that running this program is the best part of our jobs. Our enthusiasm for the program is a direct result of the amazing students we have recruited, and the rich experiences that the rest of the project team bring to bear. We look forward to seeing what these CS/M Scholars accomplish in the next five years and beyond.

- Dr. Perry Fizzano

Current CS/M Scholars
Kelly Fick (left) and Ana Uribe (right)

Washington State Opportunity Scholarship

Today the Washington State Opportunity Scholarship (WSOS) supports 227 Scholars attending WWU, 35 in Computer and Information Sciences and Support Services. The mission of the WSOS is to build pathways into high-demand Washington careers for residential students. Our state has one of the fastest growing state economies with more STEM and health care jobs than possible to fill. WSOS aims to connect our state’s leading industries with top Washington talent by reducing barriers to education and training, and facilitating entry into high-demand careers for low- and middle-income students.

- WSOS has supported more than 3,300 students in earning their bachelor’s degree to date. Of the currently awarded, 61% are women, 64% are students of color, and 65% are first-generation college students.
- Most WSOS graduates (81%) live in Washington State, with 55% living in or near their hometown.
- Over three-quarters (77%) of employed WSOS graduates work in STEM or health care.
- The average annual gross salary of WSOS graduates employed full-time is $62,297.

To learn more, visit: waopportunityscholarship.org
Alumni Happy Hour

With help from the WWU Alumni Association, we organized our first happy hour gathering for WWU CS Alumni at Sam’s Tavern in the South Lake Union area of Seattle. They announced it via alumni mailing lists, I posted to the WWU CS LinkedIn group, then word spread from there. Within minutes of the announcement, 10 people had registered. Within a day, 20 more. Then at the event over 100 people showed up! Personally, it was great to reconnect with folks I haven’t seen in a while, to hear what everyone was up to in their work and home lives. It was also great to see you all connecting with classmates you haven’t seen in a while. The true mark of the event’s success was that everyone kept asking when the next one will be.

We hope you will attend the next Happy Hour! To ensure you get notified, join the WWU CS LinkedIn Group (https://www.linkedin.com/groups/6684272/) run by Sam Kaplan, or sign up to receive WWU Alumni Association emails on their website, alumni.wwu.edu

- Dr. Perry Fizzano