

Gianforte School of Computing



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What's New...



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From the Director

Greetings from the Gianforte School of Computing! The months that have lapsed since our previous newsletter have been momentous ones. Last Spring, our Computer Science Department was given the green light by the Montana Board of Regents to transition into a School of Computing. Greg and Susan Gianforte then stepped forward with a generous gift that accelerates our ability to advance. Why did we want to be a school instead of a department? One reason is that the new name better captures the broad, pervasive nature of software in today's world. A second reason is that a

school is better positioned to offer degrees that cross disciplinary lines. For example, we recently proposed a Computer Science B.A. degree, a STEAM degree where the A broadly represents the arts, the humanities and the social sciences. We would also like to investigate opportunities in the broad area of data science.

We are in the fourth year of our Demand Generation Initiatives. The purpose of these initiatives, supported by the Gianforte Family Foundation, is to raise awareness of the incredible personal and professional opportunities that computer science knowledge provides in today's world. When these initiatives began in 2013, 281 students were majoring in Computer Science at Montana State University. That number has now risen to 493. Please accept my heartfelt gratitude for working with us to provide new opportunities to Montana K-12 students.

Happy Computing!

Grace Hopper 2016

Nineteen students traveled to Houston to attend the Grace Hopper Celebration of Women in Computing Conference held in Houston, Texas. Students returned

to MSU motivated and inspired by the 15,000 women in technology also in attendance. Thank you to Micron, Fast Enterprises, Oracle, Workiva, Printing For Less, Security Innovation, and Pluralsight for sponsoring our students!



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New Baby Bobcat!

Dr. Upulee Kanewala and Dr. Indika Kahanda welcomed a new addition to their family this year, Indira Minketh Kahanda, born June 30th!



Congratulations!

Around the GSoC....

- CS minor, Maia Grudzien, and CS major, Justin O'Dea, each received a Presidential Emerging Scholars Grant, and CS major, Angus Tomlinson was named a McNair Scholar.
- CS undergraduate students Bridger Howell, Sage Smith and Joe Whitney competed in the ACM Regional Programming Contest finishing fifth out of 60 teams in the region.
- Alex Calderwood, Rostick Mertz, Ryan Thompson and Angus Tomlinson received Undergraduate Scholars Program (USP) awards for the 2016-2017 school year.
- Logan Perrault, Monica Thornton and Dr. John Sheppard received the inaugural Oscar W. Sepp Best Paper Award at IEEE AUTOTESTCON, September.
- Sam Micka, Ph.D. student, and Maia Grudzien, won awards for best student presentations at the 2016 International Highway Engineering Exchange Program Conference.
- The GSoC was among 200 organizations nationwide featured by the White House for advancing computer science education in the K-12 system as part of the Computer Science For All initiative.
- Janette Rounds, M.S. student, received the Best Graduate Student Talk at the Rocky Mountain Celebration of Women in Computing Conference in Salt Lake City, September.

Demand Generation Update

Joy and Beauty of Data

We are pleased to offer a new 2-credit summer MSSE course for Montana teachers, *Computer Science in the Classroom: The Joy and Beauty of Data*. High school teachers who take the course can potentially teach CSCI 108, The Joy and Beauty of Data, as a dual enrollment course. In addition, teachers who take the course will be introduced to the broad area of data science and will extend their knowledge of the Python programming language. The course will be offered the week of July 17th in Bozeman.

Small Grant Program for MT Schools

This year, the GSoC launched a new small grant program. The program's aim is to provide Montana high schools with support to develop or expand computer science related programs, enable students to learn computing skills and expose students to careers in computer science. We received many competitive applications and 10 schools received awards. Congratulations to Absarokee High School, Foothills Community Christian School, Gardiner High School, Harrison School District, Lockwood School District, Sentinel High School, Simms High School, Superior High School and White Sulphur Springs District 8!



Looney Challenges

After three years, Looney Challenges are continuing to improve. This year we are updating the Looney Challenges webpage to be a "hub" for teachers or anyone interested in improving their computing skills. The hub will be a place to find and/or post activities, questions, and learn about new ideas in computer science. Stay tuned to the Looney Challenges webpage for updates.

oSTEM

The GSoC and MSU supported five computer science students to attend the oSTEM conference, held in Denver, Colorado. The students developed leadership skills, attended career workshops and networked with other oSTEM professionals and representatives from high tech companies over two days.

For more information about Demand Generation Initiatives, please contact Sharlyn Izurieta, 994-4794 or Sharlyn.Izurieta@montana.edu.

Stay Calm & Eat Ice Cream!

New and returning computer science students were welcomed back to the MSU campus with an Ice Cream and Root Beer Float party hosted by the GSoC, AWC and ACM.



Sit with Me - Across MT



The Association for Women in Computing (AWC) at Montana State University (MSU) is leading an outreach project in partnership with MSU's GSoC and the Electrical and Computer Engineering Department. The outreach project is part of the Sit With Me – Montana State University program started in 2015.

Our project goal is to reach young women in all communities across Montana. Through the "Red Chair," we hope to bring awareness of the importance of having women and diverse perspectives in technology. We also hope to encourage young women to pursue careers in computer science and engineering at a higher education institution.

AWC developed a program for middle school and high schools. This winter, AWC students are piloting the program at local schools, most recently with Mr. Sayer Wickham's 6th grade technology class at Headwaters Academy. Their goal is to partner with other Montana higher education institutions to reach out to local schools next year.

Please contact Sharlyn Izurieta, AWC advisor and Demand Generation Coordinator, Sharlyn.Izurieta@montana.edu for more information.



Who's Who in the GSoC



Dr. Indika Kahanda joined the School of Computing in August, 2015. Originally from Sri Lanka, Dr. Kahanda attended the University of Peradeniya where he completed a Bachelor of Science in Computer Engineering with First Class Honors. He continued his studies at Purdue University where he received a Master of Science in Electrical and Computer Engineering. He moved west to Colorado State University and completed his Ph.D. in Computer Science in May, 2016.

Dr. Kahanda's research focuses on Bioinformatics, specifically focusing on (1) Predicting mental illness categories for biomedical literature, (2) Predicting miRNAs using machine learning, (3) Predicting protein function and (4) Extracting protein-function relation for biomedical literature. Dr. Kahanda encourages students to contact him if they would like to get involved with his research.

When asked about the future of computer science, Dr. Kahanda is most excited about the possibility of personalized healthcare in the very near future and the significant role of computer scientists and bioinformaticians. He also enjoys collaborating with biologists to conduct research on problems directly related to healthcare.

In addition to research, Dr. Kahanda teaches courses in Discrete Structures, Data Structures, and Bioinformatics.

Dr. Kahanda enjoys playing and watching sports, including soccer, football and cricket. He is also enjoying being a new Dad to Indira!

Meet our Students!



Courtney Linder

Hometown: Dillon, MT

Year at MSU: Junior

Why MSU? I chose MSU to be able to study computer science while taking diverse classes. I have had incredible

+opportunities because of choosing MSU.

Why Computer Science? I always loved math. I visited MSU for a campus tour and visit. While on campus I was able to talk to Dr. John Paxton and hearing him talk about the program and his passion, I knew right then what I wanted to do.

Advice for future students? Don't be afraid to ask questions, especially large groups. Also, go to your teachers' office hours, not only for help on homework, but to get to know the professors in the department.

Future plans? Move to Seattle or Denver to work and continue my education in graduate school. Eventually, I would like to be an animator for movies or video games.

Favorite day of the week? Sunday



Clint Cooper

Hometown: Polson, MT

Year at MSU: Graduate student

Why MSU? MSU offered me the Presidential Scholarship as an undergraduate. On top of that I visited the CS

Department when I was in high school and it looked like it offered many great opportunities.

Why Computer Science? I have always enjoyed tinkering with computers. Been doing it my whole life. It just felt like the natural profession to get better at it and improve my skills.

Advice for future students? A favorite quote that I think all students should know, "Don't ask what the world needs. Ask what makes you come alive, and go do it. Because what the world needs is people who have come alive."

-Howard Truman

Future plans? Pursue a graduate degree then look for a job that will continue to challenge me after school.

Favorite pizza? Free pizza.