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Making Computational Science Super Cool!

SDSC Starts 2014 Summer Internship Program for High School Students



Group photo of REHS students

The San Diego Supercomputer Center (SDSC) at the University of California, San Diego, this week started its fifth annual Research Experience for High School Students (REHS) summer program, where students join multidisciplinary research teams and staffers at the Center to gain experience across a wide array of computational research.

Expanded to eight weeks, the REHS program continues through August 15. Internship hours typically range from 15 to 25 hours a week, and will be coordinated with SDSC Principal Investigators and other staffers who are serving as mentors in the program.

REHS students kicked off the summer program on June 23 with a welcome and orientation session followed by a group photo and a “fun run” on the UC San Diego campus to find answers to various clues. At the end of the eight-week program, students will hold a poster session describing their projects and research findings.

“Thanks to an expanded selection of internships and broad participation from the SDSC staff, we have a total of 60 high school students enrolled this year – almost twice the number of students from last year’s REHS program,” said Ange Mason, SDSC’s education program manager. “It has become quite challenging for us to select students from the more than 200 applications we received, because collectively, these students have an amazing diversity of backgrounds and interests in all areas of computational science.”

REHS is intended to serve as a stepping stone for those students who are considering pursuing a computational science curriculum as a major or minor when they enter college. “We view this high level of interest as a very positive sign that more students throughout a wider number of San Diego-area high schools are becoming aware of the computational sciences as both a focus for college and a potential career choice,” said Mason.

“Super Coolness of Computing”

A full range of student internships are being offered this summer. Subject areas include working with SDSC researchers in the areas of molecular dynamics software development, advancing drug designs for Parkinson’s Disease, understanding and managing large data sets and scientific workflows, working on projects related to predictive analytics, developing reliable network and information technology infrastructures, and learning how to effectively communicate and publicize research projects and their results. A [list of internship projects](#) can be found on the SDSC REHS website.

Already, several students who are starting their senior year this fall at various San Diego-area high schools are finding this year’s REHS program both rewarding and engaging.

“I hope this internship helps broaden my horizons as well as my science and math background,” said Sally Yen, a student at Mt. Carmel High School in Rancho Peñasquitos who chose science communications as her REHS internship. “I’m really interested in how science and technology relates to people, and how they can better understand the ways in which new advances can benefit them.”

“I have already learned the basics of how 3D printing works, and am already creating my own 3D designs,” said Sarah Hempton, who attends the Halstrom Academy. “I really appreciate the mentoring as we explore this technology and others, and appreciate the materials and advice for also pursuing related knowledge on our own.”

“After just one week into my internship, I can already see how my project, ‘Wearable E-Health’, is going to be a wonderful and unique experience for me,” said Natalie Kadonaga, who attends Torrey Pines High School. “I have already become exposed to new ambitions for my future.”

“I view this internship as a kind of sandbox for me,” said Olivia Palid, who attends the Academy of Our Lady of Peace, and is also focusing on science communications. “I think there’s a kind of super coolness to computing if one gets into the coding and programming end. For now I want to hone my writing skills, especially when it comes to effectively communicating conclusions. So this will be a really good learning experience for me.”

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