SDSC Launches Computational Research Program for High School Students

Summer Internships to Pair Students with SDSC Mentors

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The San Diego Supercomputer Center (SDSC) at the University of California, San Diego, is launching a new volunteer internship program for high school students this summer to assist them in gaining experience in a particular area of computational research.

The program, called Research Experience for High School Students (REHS), will pair 22 students with SDSC mentors. The internships start Tuesday, July 6, and will run for six weeks. All students are volunteers and will be working 20 to 25 hours per week. At the end of the program, there will be a poster session in the 2nd floor lobby area of SDSC's East Building, on August 12 from 2:00 pm to 4:00pm. SDSC and UC San Diego staffs are invited to attend.

"This is a wonderful opportunity for students to gain valuable research experience in the subject areas that interest them, such as computational chemistry or biology," said Ange Mason, Education Program Manager at SDSC. "Students will be working on projects spanning the range from data mining to supercomputer-based workflows to scientific visualization - projects that we hope will guide them into computational careers as they enter college."

REHS project descriptions include:

Creating a mechanism and software for processing large biomedical images on a new SDSC supercomputer
Learning about data mining techniques
Developing an interactive process to monitor energy consumption across the UC San Diego campus
Learning about 3D modeling and animation using Maya software, 3D Studio Max and AutoCAD
Contributing to the design and development of a new web site for the Cooperative Association for Internet Data Analysis (CAIDA), a group within SDSC dedicated to Internet research
Assisting staff in developing documents to support an SDSC project on Medicaid fraud detection
Developing software to couple the AMBER (Assisted Model Building with Energy Refinement) molecular dynamics software to the ADF (Amsterdam Density Functional) package, supporting research into the reaction paths of condensed phase enzymes and providing benefits across multiple fields including drug design, protein engineering, and biofuel research.

Full details of the REHS projects can be found at http://education.sdsc.edu/

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