Research Experience for High School Students Project Description

Project Title: Monitoring and Analysis Software Intern

Project Overview:

A science gateway is a community-developed set of tools, applications, and data collections that are integrated via a portal or a suite of applications. Due to limited development and administrative personnel resources, science gateways often leverage only a small subset of the NSF-funded cyberinfrastructure to mitigate the complexities involved with using multiple resource and services at scale in part due to software and hardware failures. We are building an Automated Monitoring AnalySis Service (AMASS), based on machine learning techniques and emerging big data technologies, to provide a flexible and extensible service for automated analysis of monitoring data. Science gateways will be able to use AMASS to determine where to run jobs and help them to scale in order to meet unprecedented growth in their user base.

Number of Students Requested: 1-2

Name of Lead person: Dr. Shava Smallen, Research Programmer, San Diego Supercomputer Center, UCSD

Plan to Integrate Student into Group Activity:

The intern will be a part of the summer student staff working to assist with social media outreach. He or she will attend the group meetings and share in weekly planning and logistical meetings. The student will work closely with the project lead and the other Education team members.

Student Prerequisite:

We are looking for a student who is self-driven and able to work with minimal supervision. The intern must possess excellent written and oral skills. Familiarity with Python.

Number of hours per week: To be arranged (10-20)

Relevant Links:

San Diego Supercomputer Center:

http://www.sdsc.edu/