

SWOSU Computer Science Students Visit Supercomputing Center & National Weather Center

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Southwestern Oklahoma State University computer science and engineering students in Weatherford recently had an afternoon of discussing high performance computing.

The 12 students traveled to Norman to visit the University of Oklahoma's research campus to tour its data center, look at the multi-million dollar supercomputer Schooner and discuss weather forecasting software with researchers from the National Oceanic and Atmospheric Administration (NOAA).

Data Center Operations Manager Shane Smith explained the infrastructure required to support major systems providing critical services to the surrounding area. David Akins and Kali McLennan from the OU Supercomputing Center for Education and Research described the Schooner supercomputer and explained what allows it to use all 500 nodes to perform computations. Gerry Creager of the NOAA National Severe Storms Laboratory explained the software used for severe weather prediction.

SWOSU's Dr. Jeremy Evert said the trip was in preparation for a SWOSU summer research project, which will allow students to benchmark weather prediction models. The SWOSU team will look at the NASA Unified Weather Research and Forecasting Model as well as the model from the National Center for Atmospheric Research. The students will examine how efficient the current software is at scaling up to larger systems. The students will also develop tutorials for running the models on smaller local machines.

The end result of the project is for the students to provide performance data using real world software on world class systems while developing meaningful job skills.

"I am thankful for all our partners across the state of Oklahoma," Evert said. "Our students will use surplus servers from the Oklahoma State University High Performance Computing Center and pull data across a research network provided by the Oklahoma State Regents for Higher Education. Thanks to our partners at OSRHRE, OSU, OU, NOAA, and NASA, our SWOSU students are going to have a world class summer research experience."