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NSF High Performance Computing Community Event Hosted in Tulsa

Dillon Martone
The second annual Community Building for High-Performance Computing Curriculum Development event was hosted by the Tandy School of Computer Science at The University of Tulsa June 10-12, 2019. The workshop addressed the need to graduate more students with high-performance computing skills to help power the fourth industrial revolution. Attendees discussed activities and possible avenues to meet this growing demand. This was an NSF-funded event through the XSEDE Education program with the goal of helping universities work together to improve HPC training. The event was hosted by the Shodor Education Foundation, a nonprofit computational science organization providing students and educators with free online education tools, and by The University of Tulsa. “This was the second in a series of workshops on expanding the HPC community that Shodor helped to host,” said Aaron Weeden, programming and parallel computing mentor at Shodor. “The growing HPC education community is well served by efforts across the nation and around the world. It is always a great pleasure to work with our professionals to help improve the HPC pipeline.”

The event, which had attendees from 10 states, featured speakers such as former Student Cluster Competition Chair Stephen Harrell, who discussed the career path for new HPC systems administrators at Purdue. Dirk Colbry, director of HPC studies for Michigan State University, presented the development of their parallel programming course for non-computer science majors which was partially developed at last year’s workshop. Dirk also discussed their new HPC CyberAmbassadors program.

Henry Neeman, assistant vice president of information technology for the University of Oklahoma, presented lessons learned from hosting seventeen years of the Oklahoma Supercomputing Symposium. Neeman shared what has worked well, how the thing started and the added benefit to the local community, as well as the national figures who have presented keynotes. The next symposium is September 24-25, 2019.

“It is an honor to be a part of a national event in my home state,” said Jeremy Evert of Southwestern Oklahoma State University. Evert gave a presentation on the success of SWOSU students in supercomputing programs at the state and national level. “SWOSU students have participated in several national opportunities, including the Blue Waters Student Internship Program, NASA research, and the National Conference on Undergraduate Research,” said Evert. “Oklahoma is also host to many local opportunities including the Oklahoma High Performance Computing Competition, Oklahoma Research Day, the Oklahoma Supercomputing Symposium, as well as our own SWOSU research fair.”

Kate Cahill of the Ohio Supercomputer Center was a cohost for the event. Kate previously worked with event cohost Peter Hawrylak of The University of Tulsa as part of Peter’s year-long XSEDE Campus.
Champions Fellowship. “It was a great honor and privilege to be able to host the workshop at The University of Tulsa. The workshop brought together great researchers and teachers in an effort to grow the high-performance computing community and develop strategies to generate graduates with the high-performance computing skills necessary to power the next industrial revolution centered on artificial intelligence (AI), machine learning, and big-data processing.” said workshop co-host Peter Hawrylak of the Tandy School of Computer Science at The University of Tulsa.

“This is a chance to tie together many of our national and international training programs for HPC education,” Cahill said. “This event is a great way to continue to expand our community.”

Participants in the event were encouraged to continue participation in other national initiatives, such as PEARC19 and SC19.
Photo courtesy of Peter Hawrylak.
Participants and hosts of the 2019 Community Building for HPC Curriculum Development Workshop. Evert is bottom left. Cahill is top right. Hawrylak is left side, 2nd from the top.