Engineering Education
Student Researchers
Recognized at Poster Sessions | College of Engineering

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News Release — LOGAN, UTAH — April 29, 2019 — Lori Caldwell and Jack Elliott, two student researchers representing the Department of Engineering Education, were recognized for their work at two separate poster competitions held in honor of Research Week, April 8-12, 2019.

Caldwell, a first year PhD student in USU’s pioneering engineering education PhD program, and Elliott, an Engineering Undergraduate Research Program (EURP) Fellow, each authored and presented a poster describing their ongoing research activities in engineering education. Both students are advised by Dr. Angela Minichiello, Assistant Professor in the Department of Engineering Education.

Caldwell, who graduated in biological engineering, is part of an interdisciplinary team funded by the Office of Naval Research and comprised of researchers from engineering education, computer science, and mechanical engineering. The team is developing and implementing a mobile, instructional tool for fluid mechanics education. The mobile “app” will make authentic Particle Image Velocimetry measurements and flow visualizations, regularly used by scientists and engineers in practice, accessible to high school and undergraduate students who are interested in the study of fluid flow and fluid mechanics.

Caldwell’s presentation entitled “Developing a Mobile Instructional Particle Image Velocimetry or “mI-PIV” Tool for STEM Outreach and Undergraduate Education” was recognized in the graduate student category at both the USU College of Engineering Research Week Poster Competition and the Student Research Symposium (SRS) Poster Competition hosted by the School of Graduate Studies. The SRS is Utah State’s largest showcase of student research.

Elliott, a senior in Utah State’s mechanical and aerospace engineering program, is a recipient of an undergraduate research fellowship and is supported through the College of Engineering and the Department of Engineering Education.

Elliott is pursuing research aimed at developing understandings of the formation, evolution, and effects of student interactions with peers and course resources on their outcomes and performance in undergraduate engineering education.

In his presentation entitled “Using Social Network Analysis to Understand Student Interactions in Large Undergraduate Engineering Courses,” Elliott presented preliminary results that describe how students initiate and develop study groups at the start of a course. Elliott’s presentation was recognized in the undergraduate category of the College of Engineering Research Week Poster Competition.

Congratulations to both of these students!

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