This blog hosts weekly news about the Texas A&M University Sketch Recognition Lab. SRL is directed by Dr. Tracy Hammond, an associate professor in the Computer Science and Engineering Department. More information about the lab can be found at http://srl.tamu.edu

Thursday, November 20, 2014

SRL Project Presentations at the Farewell to Zachry Engineering Center

On Friday, November 14, after 42 years serving as the home to Texas A&M engineering courses, distinguished guests, pioneer donors, and current and former students gathered on the lawn of the Zachry Engineering Center to say goodbye to the building. The Sketch Recognition Lab (SRL), directed by Dr. Tracy Hammond, was one of eight labs from the Dwight Look College of Engineering chosen to present recent research to event attendees.

Attendees not only paid respects to the Zachry building, but also witnessed the groundbreaking of the incoming Engineering Education Complex, which is set to open in 2017. The renovation will begin this winter break. Due to the scale of the construction project, speakers included distinguished former students such as Astronaut Mike Fossum and the current TAMU Student Body President Kyle Kelly. According to the College of Engineering’s news page, additional remarks were made by Chairman of The Texas A&M University System Board of Regents Phil Adams, Chancellor John Sharp, and Vice Chancellor and Dean of Engineering Dr. M. Katherine Banks.

For the groundbreaking, SRL members Trevor Nelligan, Cassandra Oduola, and David Turner represented the lab, along with students in Dr. Hammond’s senior-level Aggie Challenge or Capstone Design courses. The SRL and other labs were asked to set up posters and demonstrations to showcase current undergraduate research efforts in TAMU engineering.

SRL members and senior undergraduate students presented projects developed recently in part by SRL undergraduates. Nelligan and Turner used a touchscreen tablet and poster presentation to demonstrate Mechanix, which is a program that recognizes sketched diagrams drawn by users and operates as a sketch-based tutoring system. Mechanix automatically corrects and provides feedback to hand drawn statics homework problems. Mechanix is currently in use at TAMU, Georgia Tech, and LeTourneau University.

Dr. Hammond’s AggieChallenge students Michael Turner, Devin Tuchsen and Khao Bui, who are also mentored by David Turner, used a laptop and poster presentation to demonstrate CourseSketch. CourseSketch is another sketch-based education program similar to Mechanix that focuses on interactive learning and will soon be used to create entire sketch-based lecture programs that will pose questions and route students depending on their sketch responses.

Dr. Hammond’s Capstone senior students Kodi Tapie and Patrick Vo, mentored respectively by Larry Powell and Vijay Rajanna of the SRL, demonstrated the HaptiMoto vest, the project that inspired their current haptic project. HaptiMoto is designed to allow touch sensors within the vest to give motorcyclists hand-free turn-by-turn route guidance for enhanced safety on the road. HaptiMoto was developed and tested by a large number of undergraduate students in conjunction with recent SRL graduate Dr. Manoj Prasad.

Additionally, Tapie and Vo showcased vibrating plush toys developed last spring in Hammond’s 2014 undergraduate capstone course. Tapie and Vo demonstrated the toys in games of hide-and-seek, allowing the person holding the toy to know via vibrations how close or far they are from their target.

Feedback to the SRL presentations at the groundbreaking was overwhelmingly positive, with many distinguished donors and guests interested in the research products. Tapie even noted, "Some donors wanted to purchase the plush toys to play hide-and-seek with their grandchildren!"

Below: David Turner and Michael Turner showcasing the CourseSketch poster.
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No comments yet

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