

Computer Science and Engineering students earn honorable mention from CRA

JUNE 6, 2013

Computer Science and Engineering students **Cesar Rodriguez** and **David Turner** were selected Honorable Mention in the Computing Research Association's (CRA) Outstanding Undergraduate Researcher Award 2013.

Rodriguez was recognized for his team research project, "Blind RRT: A Probabilistically Complete, Distributed RRT." The focus was on designing and implementing parallel motion planning strategies that will lead to scalable and effective solutions. The research experiments showed that Radial Blind RRT (Rapidly-Exploring Random Tree) scales almost linearly while effectively covering the space as opposed to Radial RRT.

He also contributed to the Radial RRT method that was developed by Sam Jacobs, a doctoral student in the Parasol Lab and one of his mentors, and was a co-author on the paper presenting the method at the *IEEE International Conference on Robotics and Automation* held in May in Karlsruhe, Germany.

CRA cited Turner for his work on "Mechanics - Free Body Diagram and Truss Analysis Sketch Workbook," a **Sketch Recognition Lab** (SRL) team project. The team developed and adapted a free-sketch recognition program to create and evaluate an educational tool for improving student learning of free-body diagrams. The tool was utilized in first-year Fundamentals of Engineering and Statics curricula, creating collaboration between experts in civil engineering, computer science, and engineering education.

Turner is currently a summer intern at Google in California and plans to graduate from Texas A&M in September, 2014. He is advised by **Dr. Tracy Hammond**, associate professor and director of the Sketch Recognition Lab.

Rodriguez graduated in May and was a research member of the Algorithms & Applications Group in the **Parasol Lab**, which is co-directed by his former advisor Unocal

Professor **Nancy Amato**.

CRA's Outstanding Undergraduate Research Award recognizes undergraduate students in North American universities who show outstanding research potential in an area of computing research. Notable qualities of the nominees include making significant contributions to more than one research project, authoring or coauthoring multiple papers, making presentations at major conferences, and producing software artifacts that were in widespread use. Nominees have been involved in successful summer research or internship programs, are teaching assistants, tutors, or mentors, and have had significant involvement in community volunteer efforts. It is quite an honor to be selected for Honorable Mention from this group.