

# CSE students present MECHANIX project

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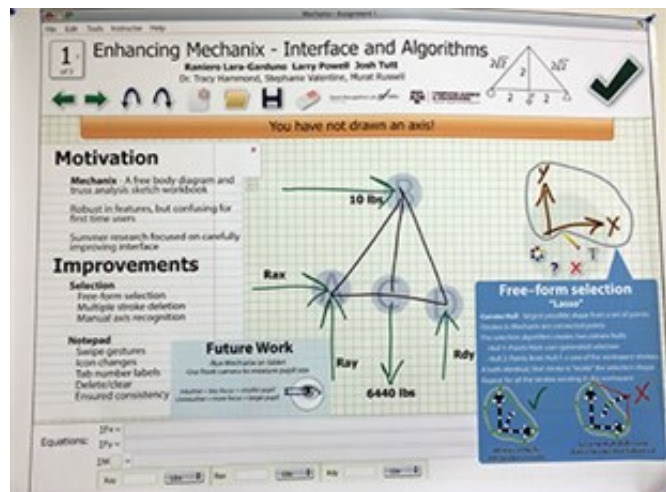
By: **Kathy Flores**



**Raniero Lara-Garduño**, a computer engineering Ph.D. student, and **Larry Powell**, a senior in computer science, both students in the Department of Computer Science and Engineering (CSE), were 2nd place winners in two graduate student categories at **Student Research Week 2014**. They presented their poster, "Enhancing Mechanix - Interface and Algorithms," in Engineering/Architecture and in the Sigma Xi Award for Interdisciplinary Research

categories.

**Mechanix**, a free body diagram and sketch recognition workbook, is a tutoring and grading system that allows students immediate feedback on their planar truss and free-body diagrams by checking them against an instructor's hand-drawn answer. The team's poster shows the enhancement of Mechanix with multiple improvements to interface and algorithms.



The Sketch Recognition Lab researchers under the direction of Dr. Tracy Hammond, CSE associate professor, continue with their Mechanix investigations and have produced multiple well-received papers and presentations since the beginning of the project in 2012. Mechanix research is supported by the NSF, DARPA, and the Computing Research Association.

Raniero Lara-Garduño is a first year Ph.D. computer engineering student in the field of Human-Computer Interaction. This year he is the graduate advisor of the Upsilon Pi Epsilon

(UPE) Honors Society on the Texas A&M campus, and in previous years Raniero was UPE president and treasurer. Among his honors are the CSE department's 2013 Undergraduate Leadership Excellence Award and a Texas A&M System Louis Stokes Alliance for Minority Participation Fellowship. In 2010 Raniero worked as a Cisco Choice Intern at Cisco Systems in San Jose, California.

As UPE president, Larry Powell was recently involved in an Undergraduate Programming Challenge, a first time ever event hosted by UPE in the CSE department. Under his leadership, UPE has hosted multiple successful events this spring enhancing graduate and undergraduate student social and academic involvement in CSE.

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#### Photos:

- (l-r) Raniero Lara-Garduño and Larry Powell with poster awards
- Mechanix poster