

EECS NEWSROOM

Dr. Joseph J. LaViola, Jr. Awarded 2009 NSF CAREER Award

LaViola is the third EECS Assistant Professor in two years to receive a CAREER Award

Joseph J. LaViola Jr., School of Electrical Engineering and Computer Science Assistant Professor, is a 2009 recipient of the National Science Foundation's Faculty Early Career Development (CAREER) award. He is the third EECS associate professor in two years to earn this NSF distinction, which is the agency's most prestigious award for young faculty members.

LaViola's research award will focus on "Mathematical Sketching: Pen-Based Tools for Conceptual Understanding in Mathematics and Physics". LaViola's proposed research will develop new mathematical sketching tools to improve student learning in STEM. High level semantic recognition techniques for understanding mathematical sketches will be explored to ensure proper interactive feedback, facilitation of correct cognitive models, and the generation of the most appropriate dynamic visualizations for a given problem. In addition, these techniques will, in part, be used to develop strategies in inferential statics and dynamics, the process of finding appropriate animations when users do not directly specify motion equations in the problem solving process.



Dr. Joseph J. LaViola, Jr.
2009 NSF CAREER award recipient

In addition to the work LaViola will conduct for his CAREER award, he is the director of the Interactive Systems and User Experience Lab in the School of EECS at UCF, where he and his team (shown below) are working on 3D User Interfaces, Pen and Multi-Touch Computing and Motion Tracking and Estimation. LaViola's personal research interests include pen-based computing, user interfaces, human motion estimation, virtual reality, and computer graphics. He

is also a member of the Microsoft Center for Research on Pen-Centric Computing.

The School EECS has five CAREER Award winners and one Air Force Young Investigator winner. The NSF CAREER program is the most prestigious award the agency gives to junior faculty, and the CAREER provides a firm foundation for a lifetime of leadership in integrating education and research.

According to NSF, those selected for this highly competitive award "Exemplify the role of teacher-scholars through outstanding research, excellent education and the integration of education and research within the context of the mission of their organizations."

