

Rodrigo Gutierrez

Curriculum Vitae

Education

- Ph.D. • Expected Fall 2010. *University of South Florida, (Tampa, FL)*. Doctorate in Computer Science from the Department of Computer Science and Engineering. Advisor: Dr. Robin Murphy.
- M.S.C.S. • Expected Summer 2009. *University of South Florida, (Tampa, FL)*. Master's degree in Computer Science from the Department of Computer Science and Engineering. Advisor: Dr. Robin Murphy.
- B.S. • Received July 2005. *University of South Florida, (Tampa, FL)*. Degree in Computer Science from the Department of Computer Science and Engineering. Research Experience for Undergraduates (REU) in Artificial Intelligence-based Robotics with Dr. Robin Murphy.

Research Experience

University of South Florida

- 01/2006 – • Graduate Research Assistant, Department of Computer Science. Advisor: Dr. Robin Murphy.
- Terrain Analysis for Human-Robot Interaction (TAH-RI): Robot Navigation, Path Planning, Map Building, and Map Sharing using Multi-layer Maps.
- Affect-Based Control of Mobile Robots Using Fuzzy Logic.

University of South Florida

- 2004 – 2005 • Research Experience for Undergraduates (REU) Program, Department of Computer Science. Advisor: Dr. Robin Murphy.
- Terrain Analysis for Human-Robot Interaction (TAH-RI): Trulla Terrain-Sensitive Path Planning Algorithm.

Skills

- Academic • Artificial Intelligence, Artificial Intelligence-based Robotics, Distributed Systems, Fuzzy Logic, Neural Networks, Algorithms, Machine Learning
- Technical • Java, Python, Perl, Cocoa, Objective-C, C, C++, \LaTeX , UNIX/Linux, Mac OS/X, Windows, MySQL, Google Search API, Google Maps API

Work Experience

University of South Florida, Tampa, FL

- 01/2008 – • *Teachers Assistant*. Instruct the lab sessions for the undergraduate C for Engineers course. Provide hands on assistance to students experiencing problems with their programming assignments. Grade weekly assignments and offer feedback.

Work Experience (continued)

Institute for Safety Security Rescue Technology, Tampa, FL

- 01/2006 – 12/2008
- *Research Assistant*. Responsible for creating and maintaining a cartographic component used in a distributed robot architecture which supports path planning, map building, and map sharing within a heterogeneous team of mobile robots. Project lead for a small group researching the use of robot teams to conduct terrain classification. Investigated artificial emotions and their utility in determining agent behaviors.

Combase Enterprises, Brandon, FL

- 08/2000 – 01/2006
- *Systems Administrator/Programmer*. Developed scripts in Perl and PHP that were used for administrative tasks and web based applications. One application in particular automated the shopping cart delivery process for a site offering phone cards and other VoIP services. This application helped the site become the companies primary revenue source. Installed and upgraded software, as well as implemented security on all UNIX/Linux machines within the facility.

Honors and Awards

- 03/2008
- Received travel grant to participate in the HRI Pioneers Workshop at the 2008 Third International Conference on Human-Robot Interaction in Amsterdam, The Netherlands.
- 12/2006
- 2nd place in the 3rd annual Computer Science and Engineering Department's Outstanding Graduate Research Competition.
- 08/2001 – 07/2002
- Provost's Scholar.

Invited Talks

- 09/22/2008
- "Lessons Learned from the HRI Young Pioneers Workshop". *Workshop on Teaching HRI to Humans*, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), Nice, France.

Publications

- 2009
- Rodrigo Gutierrez, Robin R. Murphy, Matthew T. Long. "A Distributed Cartographer for a Hybrid Deliberative/Reactive Robot Architecture". *IEEE Transactions on Robotics (T-RO)*. **Decision pending**.
- 2009
- Rodrigo Gutierrez. "Teleoperation Using an iPhone-based Operator Control Unit". *In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems, 2009. (IROS 2009)*. **In review**.
- 2009
- Rodrigo Gutierrez, Jeff Craighead. "iPhone Native Packbot OCU". *In Proceedings of the ACM/IEEE International Conference on Human-Robot Interaction, 2009. (HRI 2009)*.
- 2008
- Jeff Craighead, Rodrigo Gutierrez, Jennifer Burke, Robin Murphy. "Validating the Search and Rescue Game Environment as a robot simulator by performing a simulated anomaly detection task". *In Proceedings of the IEEE/RSJ International Conference on Intelligent Robots and Systems, 2008. (IROS 2008)*.