# Randolph C. Voorhies

703 1/2 East Edgeware Road. Los Angeles, Ca. 90026 voorhies@usc.edu

# **Education**

#### Ph.D. in Computer Science

In Progress University of Southern California GPA: 3.930

#### M.S. in Computer Science - Intelligent Robotics

August 2009 University of Southern California GPA: 3.910

#### **B.S. in Computer Engineering & Computer Science**

December 2006 University of Southern California GPA: 3.497

# **Technical Skills**

#### **Programming Languages**

C++ (11) · Python · MATLAB · Javascript · Perl · Spin

### **Electrical Engineering Tools**

Altium Designer · Cadsoft Eagle · Surface Mount Assembly

#### **Software Libraries**

Boost · ZeroC Ice · Eigen · OpenCV · ROS · Qt · Thrust

#### **Engineering Abilities**

Image Processing · Robotics Perception & Localization · Distributed Programming · Circuit Board Design

# **Experience**

## **USC Computer Science Department**

Fall 2007 - Present

Graduate Research Assistant in Laurent Itti's iLab

- Implemented NRT, a modular programming framework for image processing and robotics.
- Implemented tracking and object recognition systems for DARPA's Neovision2 project.
- Implemented a distributed attention system for DARPA's Cognitive Technologies Threat Warning System (CT2WS) project.
- Performed circuit design, assembly, and embedded programming for Beobot2.0, iLab's next generation 16-core robot.

## South Pasadena Educational Foundation

Fall 2007 - Present

Teacher Trainer

- Designed a robotics curriculum to be taught to middle school students.
- Provided weekly training sessions for teachers.

#### **USC Computer Science Department**

Fall 2007 - 2009

CS445 Introduction to Robotics Lab Assistant

- Designed and taught curricula for weekly three-hour lab sessions.
- Designed and built a custom robotics controller board based on a 600Mhz Overo processor.
- Built a software architecture and library to help the students cross-compile and upload code, as well as libraries for motion control, data acquisition, image processing, and communication.

#### Microsoft

Summer 2004

Intern in the Security Division

• Developed security database migration tools in C#.