

# Randolph C. Voorhies

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## 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#.