

James Wahawisan

Education

Carnegie Mellon University, Pittsburgh, PA
Master Degree in Electrical and Computer Engineering, May 2013*
Bachelor of Science in Electrical and Computer Engineering
With Minor in Robotics, GPA: 3.69, May 2012*

Contact

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U.S. Citizen

Objective

To obtain a summer internship utilizing my skills in electrical and computer engineering

Current Address

SMC 3993
5032 Forbes Ave,
Pittsburgh, PA 15289

Work Experience

Carnegie Mellon Biorobotics Laboratory

Undergraduate Research Assistant (April 2010 - Present)

Conceived and tested gaits for hyper-redundant modular snake robots. Designed, prototyped, and populated multilayer circuit boards using Eagle. Diagnosed and resolved faults on embedded hardware. Programmed autonomous parameterized behaviors for pipe traversal.

Qualcomm Inc.

Graphics Performance and Optimization Intern (May - August 2011)

Developed and assessed application specific OpenGL ES2.0 graphics benchmarks for mobile devices using C++. Analyzed benchmarks and proposed performance requirements for next generation hardware. Generated analytic tools for hardware test teams to evaluate phones.

Haag Engineering

Forensic Engineering Intern (September - December 2008)

Created CAD models of structures based on field notes for use in engineering reports. Aided senior engineers with calculations and measurements in studies used to estimate and document damage.

Permanent Address

2711 Wentwood Dr
Carrollton, TX 75007

Languages

Java
C
HTML/CSS
Perl
ARM Assembly

Operating Systems

Unix/Linux
Windows

Relevant Coursework

Embedded Real-Time Systems*
Fundamental Data Structures and Algorithms*
Fundamentals of Control*
Robotic Manipulation*
Structure and Design of Digital Systems
Fundamentals of Semiconductor Devices
Signals and Systems
Electronic Devices and Analog Circuits
Introduction to Computer Systems
Engineering Statistics and Quality Control
Effective Programming in C and UNIX

Projects

Robot (April 2011)

Built an autonomous vision-based robot utilizing off the shelf parts, AVR microcontroller, and netbook to navigate a painted white line on concrete in a timely manner. Finished in 3rd place.

Simple GPS (January 2011)

Built a GPS device utilizing an AVR microcontroller that navigates the user to waypoints using only a directional arrow. Conceived, prototyped, and programmed within a week for a Build 18 event demo.

Quadrotor (January 2010)

Created a semi-autonomous quadrotor from a modularized open source design utilizing an AVR microcontroller and tethered to an R/C unit. Used as a base for understanding sensor filtering and localization.

Software

Microsoft Visual Studio
Eclipse
MATLAB
EagleCAD
Open/Microsoft Office

Honors

Dean's List, Carnegie Institute of Technology (Fall 2009, Spring 2010)

Organizations

Build18 Officer

Organized and planned for a week long build event for students teams to materialize innovative electronic ideas. Conceived tutorial series to introduce microcontrollers and sensor interaction to students. Coordinated donations from corporate sponsors.

Robotics Club Project Member

Worked on miscellaneous team and individual electronic projects. Received machine tool training in the robotics club machine shop.

*in progress