Rigoberto Orozco-Diaz
5212 18th Ave NE, Seattle, WA 98105
(509) 303-9512 | rigodiaz@uw.edu | www.rigoorozco.com

Resume

Education

University of Washington, Seattle, WA

- B.S, Electrical Engineering
- Concentration on Embedded Systems
- Expected Graduation: March 2016

Related Course Work:

- Digital Circuits and Systems
- Semiconductor Diode and Field-effect Transistor Circuit Design
- Bipolar Transistor Circuit Design
- Design of Digital Circuits and Systems
- Computer Network Architectures and Protocols
- Microcomputer Systems
- Computer Architecture
- Computer Hardware-Software Interface
- Data Structures and Algorithms
- Machine Learning

Project Experience

Bluetooth Controlled Autonomous RoboTank: Created drivers and software in C to program the tank to be Bluetooth controlled and autonomous to avoid collisions. Technologies used: Embedded C, Real Time Operating Systems (FreeRTOS)

Universal Asynchronous Receive/Transmitter: built for a microprocessor application on a FPGA used to send and receive byte-sized data over a serial link. Technologies used: C, FPGA Programming

Arithmetic Logic Unit: performed bitwise operations of addition, subtraction, multiplication and division of up to 8-bit numbers on a FPGA.
Technologies used: FPGA Programming

Variable Gain Amplifier: built on an Op-amp design using BJTs to amplify a signal from an iPhone to a speaker using approximately 1 Watt.

AC to DC Converter: Fully functional AC to DC converter using a boost topology that can convert 7.5VAC a selectable DC voltage between 10V to 20V.

Honors and Awards

- Washington State Opportunity Scholarship
- Alpha Sigma Phi, Mu Chapter Foundation

References

Available upon request

Skills

Programming languages:
Verilog, C/C++, Java, Matlab/Octave
Assembly languages:
MIPS, x86-64
Software:
Quartus, ModelSim, MultiSim (SPICE)
Operating Systems:
Windows, Mac OS, Unix/Linux
2D/3D Drafting and Modeling:
AutoDesk AutoCAD, and Revit
Web Developing:
HTML, CSS
Spoken Languages:
Spanish (fluent), Portuguese (elementary)

Work Experience

Hyperloop Competition, UW Team, Seattle, WA
Power Distribution & Embedded Systems (Sept. '15 – Present)

- Design a power distribution and storage system for a pod's one-mile trip
- Design a telemetry system with multiple sensors on board the pod

Engineers Without Borders, UW Chapter, Seattle, WA
English-Spanish Translator Volunteer (March – July 2015)

- Explain details of building a multi-purpose outdoor auditorium in Guatemala
- Speak with construction managers regarding present problems and/or future plans

The Fisherman's Restaurant, Seattle, WA
Cocktail Waiter (June 2013 – Present)

- Work under pressure, waiting 7+ tables at a time
- Be able to communicate with all types of customers
- Work as a team member
- Provide accurate descriptions of drinks

Leadership Experience

Alpha Sigma Phi, Mu Chapter, Seattle, WA
Physical Plant Manager (September 2013 – April 2014)

- Attend monthly non-profit board meetings, managing a multi-million-dollar property
- Discuss important topics regarding the infrastructure of the chapter house with alumni
- Contact contractors and organize repairs and maintenance
- Lead group projects where brothers help renovate the building