**Jaime Rodriguez**

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I am a dynamic professional with a strong work ethic, pursuing my degree in Electrical Engineering. A few attributes that describe me include great analytical abilities, with a clear understanding of the Hardware Development Process. A quick learner with excellent problem solving skills, I have the ability to work accurately and pay attention to detail.

**Education**

**Portland State University,**

Bachelor of Science in **Electrical Engineering**

Graduation**: Winter 2015** Class Level: **Senior** GPA: **3.2**

**Relevant Coursework:**

Digital Systems Series (I, II), Electric Circuit Analysis Series (I, II, & III), Electromagnetics Series (I, II), Electronics Series (I, II), Microprocessors, Signals Processing and theory, Engineering Computation, Engineering Programming (C, MATLAB), and Technical Writing.

**Engineering Projects**

**Serial To USB Layout** Summer Internship

* The purpose of this project was to take an existing product and redesign the circuit and PCB to communicate using a standard USB connection instead of the current serial connection.
* This was achieved using signal converting ICs, and a simple circuit to create a working prototype.
* The prototype was then used to redesign the products schematic and PCB.

**Real Time Spectrogram** Winter Quarter 2014

* Designed a real time spectrogram to visually analyze signals at certain bandwidth
* The data acquisition tool used, the Labjack was connected and communicated to the host computer with use of Matlab, which we used to create a simple to use guided user interface.
* Exceeded project expectations by: incorporating may user selectable features (time, frequency and sample rate).

**Audio Equalizer** Spring Quarter 2013

* Designed and built an audio equalizer using standard components
* Equalizer consisted of three stages: filter stage, summing stage, and amplification stage
* Low pass, high pass, and band-pass filters were used to control bass, treble, and midrange
* Equalizer was extensively tested and tuned to eliminate noise
* Exceeded project expectations by: creating refined prototype with soldered connections with portable cased speaker.

**Sensor guided Servo** Spring Quarter 2012

* Designed a servo with a gear and photodiode attached that was capable of following a light source.
* The project was done in visual C, using a host computer to control servo.
* To exceed project expectations this was turned into a game, having a character on screen avoid falling debris being controlled by the light source.

**Wheel of Fortune** Winter Quarter 2011

* Created interactive Wheel of Fortune game by interfacing a Lab Jack with MATLAB
* Designed program using a modular approach which made testing and delegation of tasks easier
* Exceeded project expectations by creating actual spinning wheel that program interacted with.

**Technical Skills**

**Computer Programming Languages:** C, Matlab, and Assembly.

**Hardware Description Languages:** Verilog.

**Circuit CAD tools:** LTSpice, ModelSim, PADS, EAGLE.

**Operating Systems:** Windows 7, Linux/Unix, and OS.

**Laboratory Measuring Equipment:** Environmental Chambers, DVMs, Oscilloscopes, Logic Analyzer, and Spectrogram Analyzer.

**Personal:** SMT soldering, bilingual fluent Spanish.

**Experience**

**Hardware Engineer –** Supra. Salem, OR.

* Created and executed test plans and procedures to validate products (hardware, firmware and software).
* Executed test procedures and debug proof of concepts or early engineering units.
* Ensure the execution of testing and test plans are completed with the highest level of quality.
* Provided critical analysis and test result summaries.
* Documented performance data and use statistical data analysis techniques to summarize results.
* Participated in test strategy discussions, developing test methodologies, plans & test cases to ensure system performance metrics meet product specifications.

**References**

Adam Purdue Dean Sinn

Lead Sr. Electronic Design Engineer Sr. Electrical Eng.

**Supra Supra**

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