# Joshua Reed

ReedJosh@OregonState.edu
(971) 275-5001


**October 19, 2016**
236 NW 8Th St.
Corvallis, OR

## Objective

To obtain a full time design, test, or otherwise general engineering position which requires creativity and encourages self advancement.

## Education

**Oregon State University** — Corvallis, OR
*B.Sc. Electrical and Computer Engineering* — *2012 -* ***Graduating: June, 2017***

- **GPA 3.5**
- **Focus in Computer Engineering and Digital Design** *Key Courses Include:*
  - Digital Logic Design
  - Assembly Language
  - Algorithms
  - Microcontroller System Design
  - Operating Systems
  - VLSI and VLSI System Design
  - Computer Architecture

## Skills

- **HDL:** VHDL, Verilog, Modelsim and ActiveHDL Simulators, Quartus II
- **System Design:** Microcontroller, FPGA, Basic Communication Protocols
- **Development & Productivity Tools:** Microsoft Office Suite, Vim, Latex, Git
- **Software Design:** Object Oriented Programming, Linux System Interaction, C and Python
- **Hardware Design:** Discrete Logic, Transistor Layout Basics, Circuit Design and PCB Layout, Power Supply Concepts

## Internship and Work Experience

**Mentor Graphics** — Wilsonville, OR
*Technical Marketing Engineer Intern* — *Summer, 2016 - Current*

**Role:** As a Technical Marketing Engineer Intern I participated in team meetings and gave occasional presentations. My primary focus was a regression testing program that converted arbitrary graphs to geometric edge-separator pairs for use as input to Mentor's Multi-Patterning tools. Mostly written in Python, this project parsed graph files, generated SVRF and TVF scripts and managed process control of external programs. Designed for use in a Linux environment, I gained experience interacting with Linux development tools and the operating system itself.

**Garmin AT** — Salem, OR
*Design Engineer Intern* — *Spring & Summer, 2015*

**Role:** As a Design Engineer Intern at Garmin AT I interacted with a team of four and my team lead on a daily basis. Primarily I worked to redesign a portion of an aerial receiver's HDL that targeted an Altera FPGA. The main goal of this redesign was to reduce logic utilization. I achieved a reduction of 60% while also implementing VHDL 2008 constructs to develop cleaner, more extensible code. Other projects included parsing CSV Oscilloscope readings of USB communications, generating a top down compilation order for a large VHDL project using Python and developing a discrete logic circuit to multiplex LCD display data. This internship was a period of major growth for me. I gained experience with a larger VHDL project, circuit design and layout, power supply design, Visual Basic, Python and Batch scripting and electronics lab tool usage.

**Oregon State University** Corvallis, OR
*Digital Design Lab TA* *Winter, 2015 - Current*

**Role:** As a teaching assistant I worked directly instructor Matt Shuman to help guide the lab portion of the course. On occasion I developed and lead class lectures, managed lab grading and built lab study material. One of the larger projects I developed for the course was an FPGA voltmeter which required implementation of a SPI communications protocol. I have also worked with Roger Traylor and lectured in his VLSI System Design course, though this was not an employment arrangement.

**Riverstone Residential** Portland, OR
*Maintenance Supervisor* *2009 - 2012*

**Role:** As a Maintenance Supervisor at Riverstone Residential I was entrusted with many responsibilities. I managed a team of three people toward the goal of maintaining over 350 homes located within a 20 mile radius. I developed skills in problem solving, communication, time management and leadership.

## References

**Marshal Barrett** *Please Email* – MarshalBarrett@Gmail.Com
*Senior Design Engineer* *Garmin AT*

**Chris Schulte** (503) 391-3303 – Chris.Schulte@Garmin.Com–
*Staff Engineer* *Garmin AT*

**Matthew Shuman** (541) 737-1072 – ShumanM@OregonState.Edu
*Instructor* *Oregon State University*

**Roger Traylor** (541) 737-2975 – Traylor@EECS.OregonState.Edu
*Senior Instructor* *Oregon State University*

**Lisa Shoop** (503) 998-4266 – *Please Call*
*Regional Manager* *Riverstone Residential*