

Joshua Reed

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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

B.Sc. Electrical and Computer Engineering

Corvallis, OR

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 and Altera Quartus II Design Software
- **System Design:** Microcontrollers, FPGAs and Basic Communication Protocols
- **Development & Productivity Tools:** Microsoft Office Suite, Vim, Latex and Git
- **Software Design:** Object Oriented Programming, Linux System Interaction, Parsing with Regular Expressions, C and Python
- **Hardware Design:** Discrete Logic Design, Transistor Layout Basics, Circuit Design, PCB Layout and Power Supply Concepts

Internship and Work Experience

Mentor Graphics

Technical Marketing Engineer Intern

Wilsonville, OR

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

Design Engineer Intern

Salem, OR

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
Digital Design Lab TA

Corvallis, OR
Winter, 2015 - Current

Role: As a teaching assistant I worked directly with 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
Maintenance Supervisor

Portland, OR
2009 - 2012

Role: As a Maintenance Supervisor at Riverstone Residential I managed a team of three people toward the goal of maintaining over 350 homes located within a 10 mile radius. My responsibilities included: ordering supplies, scheduling of both vendors and employees, maintenance repair requests and resident communication. While in this position I developed skills in problem solving, communication, time management and leadership.

References

Marshal Barrett
Senior Design Engineer

Please Email – MarshalBarrett@Gmail.Com
Garmin AT

Chris Schulte
Staff Engineer

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

Matthew Shuman
Instructor

(541) 737-1072 – ShumanM@OregonState.Edu
Oregon State University

Roger Traylor
Senior Instructor

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

Lisa Shoop
Regional Manager

(503) 998-4266 – *Please Call*
Riverstone Residential
