

Eric Weiler

Electrical/Computer Engineering

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I am an experienced student with an interest in circuit design, validation, computer architecture, digital logic, and embedded programming. Experienced with microcontroller design and programming, including AVR, FPGA, Arduino, and Raspberry Pi. Great communication and work ethic skills from past work experience. Hoping to diversify my skills and to continue learning and trying new things.

Education

Oregon State University

Sep 2017 - Jun 2021, Corvallis OR

Part of the College of Electrical Engineering and Computer Science

Achieved OSU Dean's list for 3.75 GPA in Spring and Fall 2020

Work History

Jacobs Engineering/ Summer Intern

Jun 2020 - Sep 2020, Portland OR

Worked with senior engineers to properly route telecom and life safety devices within data centers and semiconductor fabrication plants

Gained experience using Autodesk Revit, Navisworks, and Bluebeam

Created block diagrams to help engineers better understand device layouts

Helped detect and fix missing devices and cable trays in current Revit models

Helped improve documentation and communication between teams

Fred Meyer/ Cashier

Aug 2016 - Sep 2019, Newberg OR

Cashier, courtesy clerk, utility clerk, and self checkout attendant

Improved communication, work ethic and time management skills

Past Projects

Power Over Ethernet Controller

Feb 2021

Designed an IEEE 802.3af compliant 48V PoE step-down converter with 12V output for Arduino and 3.3V output for data conversion IC

Gained experience soldering SMT components, properly sizing and routing traces, applying ground planes and expanded Autodesk Eagle skills

Variable Power Supply

Jun 2017; Updated Nov 2020

Efficient step-down converter with 36V DC input

Contains two simultaneous outputs, each 1.25-30V DC up to 3A

Raspberry Pi Weather Station

2017 - Present

Gathers inside and outside temperature data and suggests if the window should be open or not. Gathers room temperature via a 1-wire sensor and communicates over LAN to an ESP32 to get a different room's temperature.

Uses openweathermap API for outside temperature and weather data. Able to parse through received JSON response.

AVR Microcontroller Alarm Clock Radio

Sep 2020 - Dec 2020

Gained experience in C and assembly programming with AVR architectures

Used timers, interrupts, SPI, I2C and UART communication

Used a radio IC and op amp circuits to create a tunable FM radio

Skills

Programming: Experienced in C/C++, Python, moderate experience using Assembly

Microcontrollers: Experience with using Raspberry Pi, Arduino, FPGA, and AVR microcontrollers

Operating systems: Skilled Linux terminal user, knowledgeable with Windows as well

Autodesk software: Past experience using Eagle, Inventor, Fusion, Revit, and Navisworks

Circuit Design: Some experience in PCB design, microcontroller design, and power supply circuits. Able to solder 0603 SMD/SMT components. Past experience debugging and fixing existing hardware circuits.

Communication: Worked with multiple teams in past internships, strengthened communication skills with customers in past retail jobs, and took leading roles in most recent school project groups