Conor Wolfin **Redmond, WA | 425.691.7770 |** conorwolfin@gmail.com

Education

- *Oregon State University* *September 2015 – expected June 2019*
  B.S. Electrical Computer Engineering/Minor Computer Science – 3.45GPA
- *Relevant Coursework:* Microcontrollers, Computer Architecture, Op Systems, Transmission Lines, Networks

Leadership Experience

- *President and Founder* of officially recognized VR/AR club at Oregon State University; focused on community involvement and development in VR/AR with 15 member weekly attendance. Lead the organization by choosing projects, making public presentations and provide on-going education to members and community.

Professional Experience

OSU TekBot Student Store *March 2018 – Ongoing*

EECS Tekbot Developer

- Developed IR Morse Code project used in the 2018 *ECE Junior Capstone* coursework for ~80 students in ECE 341
- Assist an average of 10 students/day on topics involving module selection (buck-boost converters, motor controllers, transformers, etc.), soldering/de-soldering tips and demonstrations, 3D printing/laser cutting and guidance for personal and school projects

Vulcan Inc. *June 2018 – September 2018*

Electrical Engineering Intern - Impact Team

- Designed and prototyped modular hardware system that integrates with Holodome™ interactive projection system
- Measured input pulse width from haptic feedback output pin to execute different functions involving LED sequences from max of 12 LEDs and 1A haptic motor
- Developed custom C library to handle ATtiny84's registers for I/O, timing & interrupts creating abstracted functions for Senior Software Engineer saving >3 hours per program (removed need for ATtiny84 datasheet)
- Designed modular pushbuttons by determining connector (JST-PH) best fit for application

HTC VIVE *July 2017 – September 2017*

VR Hardware Product Intern

- Designed procedure for testing computers, graphics cards and peripherals using qualitative and quantitative measurements to determine if a product was *VIVE READY*™. Also applied a combination of commercial and proprietary benchmarking software to compare frame rates, CPU temperature and RAM usage to certify product as VIVE READY™.
- Researched VR events for HTC community involvement and led engagement with local minority-focused makerspace

Project Experience

EECS Research and Experiential Learning for Undergraduates Program (RELU) – Machine Learning Research

- Writing Python scripts to extract specific attributes on up to 202,000 images and organize the findings to csv file format in less than 30 seconds; scripts to crop and resize jpg's to specified dimensions; scripts for organizing data collected.

Global Formula Racing - Power Inverter (Ongoing Senior Project)

- Designing and testing torque-controlled power inverter with three-phase AC output for driving 400v motor on 2019 E car
- Responsible for control system interfacing with the CAN bus, determining output amplitude and frequency based on input

Augmented Reality Morality Simulator

- Responsible for executing AR platform integration with Unity app where the user deals with moral dilemmas in an AR projected city

Wireless Morse Code Transmitter

- Project designed to apply skills learned in Junior year (hardware programming, circuit design, PWM, SD card module)
- Designed transmitter based on NE555 timer circuit connected to infrared emitter transmitting user inputted pulses
- Programmed Arduino IR receiver to decode messages from transmitter to output Morse Code to an LED

Telemetry Transceiver

- Programmed Atmega328p for collecting GPS sensor data (altimeter, speed, location), thermistor and battery life and transmitted via UART between LoRa radios to an Arduino receiver
- Tested against engineering requirements through simulated product development lifecycle

Audio Visualizer

- Designed microphone amplification system using op-amps and active filters for audio visualizer project

Skills & Interests

- *Skills*: Development in RISC architectures (MIPS, AVR), Embedded Firmware (in C), Com. Protocols (ISP, I^2C, UART, CAN), C++, Python, KiCad, Spice, Unity, Verification/testing, Hardware/software debugging, VLSI (Verilog), Hardware analysis
- *Interests*: Guitar, drums, Rubik's cube (PR: 35s), fermentation science, rock climbing, Linux