

## Education

- Jun 2019 – **Master of Science, Electrical Engineering**, *Portland State University, Portland, OR.*  
Present GPA: 4.00, *Expected: Jun 2021*
- Sep 2017 – **Bachelor of Science, Electrical Engineering**, *Portland State University, Portland, OR.*  
Present GPA: 3.97, *Expected: Jun 2020*

## Work Experience

- Dec 2016 – **Production Specialist III**, *Micro Systems Engineering Inc., Lake Oswego, OR.*  
Present
  - Certified for all back-end production processes; more certifications than anyone in area.
  - Team lead for back-end tasks, designated to assign tasks, and resolve communication issues.
  - Introduce new production processes, workflow changes, and training through various engineering projects.
  - Work on LabVIEW software changes for production imaging cell, including documentation and code reviews.

## Skills

- Languages** C++, C, Rust, LabVIEW 12.0, ARM Assembly, Matlab, SystemVerilog
- Programs** Git, Linux (Ubuntu), Windows, LTspice, Cadence Virtuoso, Visual Studio, MS Office, SAP
- Hardware** Soldering, Oscilloscope (Tektronix/Rigol), Function Generator (Tektronix), Power Supply

## Projects

- Jan 2020 – **Senior Capstone | Galois Inc., Rust, C++, Arduino, Kind2, PHP, SQL, Apache2, Lustre.**  
Present Wrote FFI compliant Rust PID controller library for use on Cortex-M0+ processor by C++ main code. Wrote TCP communication code to transfer data from motion sensor to webserver to display live data through website.
- Oct 2019 – **Module Imaging Cell | MSEI Inc., LabVIEW 12.0, log4net.**  
Jan 2020 Implemented software changes to automated imaging cell production software. Introduced log4net logging to from system to SQL, data collection to digital factory, and changes to state machine meant to reduce chances of collisions and product loss.
- Sep 2019 – **CMOS Standard Library Design | ECE 526, Virtuoso 6.1.8, ADE, OCEAN/SKILL.**  
Feb 2020 Designed standard library components using Cadence Virtuoso layout and ADE tools. Wrote scripts to simulate and measure output values with different temperatures, inputs voltages, and input rise times.
- Sep 2019 – **Interactive Cube | ECE 411, C++, Soldering, MS Project, Git.**  
Dec 2020 Worked with a team to design a PCB for ATmega328p with necessary bypass, addressable LEDs, and IMU. Personally programmed processor to control LEDs using physical movement.
- Sep 2019 – **Class AB Audio Amplifier | ECE 521, LTspice, Soldering, Oscilloscope.**  
Dec 2020 Designed a complimentary symmetry audio amplifier using mostly discrete BJTs to drive a 10W speaker. Soldered, designed and tested using homelab equipment.
- Jun 2019 – **ASIC Design | ECE 581, SystemVerilog, Design Compiler, Git, Linux.**  
Sep 2019 Programmed multiple Verilog designs including FIFO, counters, and traffic lights. Synthesized the projects for comparison with simulation.
- Sep 2018 – **ARM Sitara AM335x UART / I2C | ECE 372, ARM Assembly, C.**  
Feb 2019 Programmed BeagleBone Black to communicate with a RC8660 talker boards and NewHaven LCD using assembly and C.