

## Education

- Sep 2017 | **BS in Electrical Engineering**, *Portland State University*, **GPA: 3.97**, *Portland, OR.*  
Jun 2020
- Jun 2019 | **MS in Digital IC Design, Test, and Validation**, *Portland State University*, **GPA: 3.97**, *Portland, OR.*  
Jun 2022

## Work Experience

- Dec 2016 – **Production Specialist III**, *Micro Systems Engineering Inc.*, Lake Oswego, OR.  
Present
- Certified for and operate more production processes than the majority of other employees.
  - Rebuilt and taught multiple automated imaging cells used in production for thousands of modules daily. Maintained and updated the imaging cell for new product types and configuration changes.

## Skills

- Software** SystemVerilog, Arm Assembly, LabView, C, C++, Matlab, QuestaSim, NI Vision
- Hardware** Soldering, Electrical Wiring, Oscilloscope, DMM, Schematics
- General** Excel, Word, PowerPoint, LaTeX, LTSpice, Jira, SAP BusinessObjects, Slack, Git

## Projects

### **Automated Work Cell - Biomonitor III**, *Epson Vision, Epson RC+ 6.0.*

Taught an Epson 6-Axis ceiling mounted robot pick points, transfer points and vision fiducials for processing thousands of delicate 1 x 3 cm medical implants. Completed verification, documentation, and got the process signed off by multiple engineering departments.

### **Module Imaging Cell**, *LabView, Epson RC+, Soldering, Crimping.*

Rebuilt multiple 4-Axis robots based on BOM, retaught robots for production, created documentation for teaching robots in the future. Continue to maintain robots and make improvements.

### **Blur Detection and Image Matching**, *LabView NI Vision.*

Created a VI that does image matching based on a template, converts a bounding box to an ROI, and then uses the ROI to find a blur average value that is then stored for use in a config file.

### **ASIC Design**, *SystemVerilog, Design Compiler, Git, Linux.*

Programmed multiple Verilog designs including FIFO, counters, and traffic lights. Synthesized the projects for comparison with simulation.

### **ARM Sitara AM335x UART / I2C**, *ARM Assembly, C.*

Programmed BeagleBone Black boards to communicate with a RC8660 talker boards and NewHaven LCD using barebone assembly.

### **Buck Converter**, *Oscilloscope, Matlab, Soldering.*

Built buck converter design, tested the design, and then improved the design by changing the compensator stage using bode plot analysis.

### **Fixture Build**, *Soldering, Schematics, BOM.*

Built multiple fixture based on BOM and schematics used in testing production pacemakers and defibrillator. Completed probe alignment/compression testing, soldering, verification, and release.