

## Biography

I'm an electrical engineer who loves the dynamic nature and fast pace of product design. My favourite projects are those that allow me to learn a new technology and apply it in an unusual way.

## Skill Summary

### Competencies

Schematic Capture  
PCB Layout/Fab  
Analog/Digital Design  
Electromagnetic Compliance

Test Automation  
Prototyping and Test  
Soldering and Rework  
Circuit Simulation

### Programming

C/C++  
Python  
L<sup>A</sup>T<sub>E</sub>X  
ARM Assembly

### Tools

Altium  
Allegro/Orcad  
Spice  
NI LabView

## Experience

### Electrical Engineer

#### Pensar Development

Seattle, Washington  
*August 2015 - September 2018*

- Designed several iterations of a USB hub PCB for a medical ultrasound device to meet client requirements.
- Spearheaded the EMC effort to reduce RF emissions from a medical ultrasound device below IEC-60601-1 emissions requirements.
- Validated boards against requirements and design intent, and found the root cause of any failures.

### Electrical Engineer

#### Electroimpact

Mukilteo, Washington  
*September 2014 - August 2015*

- Engaged in all phases of the product lifecycle management of aircraft assembly automation equipment for leading aerospace manufacturers such as Boeing.
- Acted as a key point of contact during on-site functional testing and support.
- Developed electrical subsystems of larger assemblies to contract specifications and in compliance with national codes.

## Education

### Bachelor of Engineering in Electrical Engineering

GPA: 7.58/9.00

University of Victoria  
*Graduated 2014*

- Specializations in Computational Intelligence and Electromagnetics & Photonics

### Diploma in Electronics Engineering Technology

GPA: 3.82/4.00

Southern Alberta Institute of Technology  
*Graduated 2011*

- Graduated with Honours.

## Projects

### Medical Ultrasound Device

- Designed USB 3.0 and USB 2.0 hub boards, emphasizing signal integrity due to electrically noisy environment.
- Exhaustively investigated cause of EMC failures, culminating in several modifications and the addition of an inline power filter.
- Instrumented hub boards for automated testing with Labview/Ni Teststand.

### Automated Fiber Placement Machine

- Developed sensor system for monitoring safety brakes along multiple axes of motion.
- Interfaced CNC with various devices for realtime monitoring and control of mobile gantry for carbon fiber placement.
- Designed 24V, 120V, 208V, and 480V AC and DC power distribution systems.