

Ross Anderson

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Summary

- **2 years** of skills in designing electromechanical parts using CAD and EDA alongside **4 years** of technical drawing skills.
- Knowledgeable of various 3D printing and CNC technologies through exposure of modifying G-code and **building a laser CNC from scratch**.
- Excellent **problem solving** and programming skills developed from time spent as head of my high school's advanced coding team, **spearheading multiple major projects**.

Professional Experience

Ciena Corp. | Hardware Design Engineer May 2023 – Aug. 2023

- Drove the design and productization of **5 bleeding edge** optical interconnect solutions, **doubling** effective speeds and reducing connector size by **40%** enabling 400g datacenter connectivity.
- Conducted application verification testing on **25 interconnect solutions**, utilizing lab test equipment and measurement techniques like **VNAs and Oscilloscopes** to assess performance and product reliability.

Longo Brothers Fruit Markets Inc. | PPF Clerk Aug. 2019 – Sept. 2022

- Delivered exceptional customer service in a fast-paced kitchen environment, **honing communication skills** and ensuring customer satisfaction.
- Developed strong **problem-solving abilities** by efficiently managing customer orders and resolving issues, demonstrating **adaptability and critical thinking skills**.

Projects

McMaster Rocketry Club Sept. 2023 – May. 2023

- Designed an ESP32-based data-logging PCB in KiCad to provide a platform that will introduce future first-year students to the software and ECAD aspect of the club.

Desktop Graphic Equalizer Mar 2023 – Aug. 2023

- Designed an op-amp based 5-band graphic equalizer using Altium for under \$110 with an extruded aluminum housing.
- Features a true bypass relay for noiseless operation, balanced RCA inputs/outputs, and carefully selected audio grade components.

Arduino-Controlled Laser CNC May 2023 – Aug. 2023

- Point Built a CNC machine from scratch capable of engraving wood for under \$150.
- Designed custom mounting plates and hardware using Autodesk Fusion360. Used filament-based 3D printing to rapidly prototype potential designs.

Skills

Electrical/Software

- Altium Designer, Cadence, and KiCad used for multiple personal projects as well as backplane PCB design at Ciena.
- JavaScript used to code an educational training app for volunteers at a non-profit healthcare organization.
- 3

CAD

- SolidWorks and Fusion360 used on various projects involving FEA and GD&T
- 2
- 3

Mechanical

- 1
- 2
- 3

Education

- 1
- 2
- 3