

Zane Maklin

Mechanical Engineering and Computer Science Student

zmaklin@gmail.com | linkedin.com/in/zanemaklin | github.com/zanemaklin

Summary of Qualifications

- Iterative design experience in professional setting using 3D printers and parametric design software
- Exceptional manufacturing knowledge in machining operations with hands on experience
- In depth experience with microcontrollers, microprocessors, and sensors

Experience

Honeywell Aerospace - Electronic Packaging Engineer Intern

Jun 2020 – Aug 2021

- Performed root cause analysis using 5 whys method during Design Validation Test cycles
- Maintained 15 Creo CAD projects/assemblies using Product Data Management software
- Generated BOMs, wiring diagrams, and production drawings using GD&T

Pure Ingenuity - Hardware Engineer Intern

May 2019 – Aug 2019

- Created Designed For Assembly sheet metal assemblies for CNC press brake and TIG manufacturing
- Delivered DFM production drawings and design solutions while meeting strict deadlines
- Generated sheet metal parts using calculated K-factors for bending and rolling

Queen's Formula SAE – Student Power Train Engineer

Dec 2017 – May 2019

- Designed and implemented an innovative lightweight fuel system to decrease system weight by 27%
- Programed CNC Mill and Lathe machining operations to create 13 stainless steel fuel system parts
- Generated fuel and implemented MATLAB consumption model for on demand fuel needs using PID control

Technical Skills

Programing

Python, C/C++, JavaScript, Linux/Unix systems

Software

SolidWorks, Creo, Inventor, AutoCAD 2D, MATLAB, MS Suite

Manufacturing

Welding, Sheet metal, Lathe and milling operations, CNC press brake, 3D Printing and Blacksmithing

Achievements

- First place at the Queen's Engineering Competition in Re-engineering and Senior Design (2018 & 2019)
- Attended and competed in the Ontario Engineering Competition (2019 & 2020, 5th place)
- First place at the SPAQ Laboratories 3D printed bridge design competition 2022

Education

B.A Computer Science – Candidate

Queen's University, Sept 2020 – May 2023

B.A.Sc. Mechanical Engineering - Mechatronics Specialization

Queen's University, Sept 2017 – May 2022