

Name

Address

Email

Phone Number

Education

University

May 2020

Bachelor of Science in Mechanical Engineering

Courses: Statics, Dynamics and Vibrations, Mechanics of Materials, Mechanical Engineering Design, FEA, Probability & Statistics, Intro to Materials Science, Thermodynamics, Heat Transfer, Fluid Mechanics, Electrical Engineering, System Analysis & Control, Measurement & Analysis with Thermal Science

GPA: 3.388

Activities: Formula SAE Electric, Division 1 Rowing Team, Student Athlete Leadership Council

Technical Skills

Applications: Certified Solidworks Professional, Minitab Statistical Analysis, ANSYS FEA, AutoCAD, Inventor

Engineering Principles: Root Cause Analysis, Design Controls, Iterative Design, Design for Manufacturing

Engineering Tools: Instron, MTS, Mark-10, Calipers, Micrometers, OGP, Comparator, Soldering, Multimeter

Manufacturing: CNC Mill, 2-Axis Mill/Lathe, 3D Printer, Laser Cutter

Programming: MATLAB, Python, LabVIEW, Arduino, C++

Relevant Experience

Medical Device Company

June 2020 – Present

Test Engineer

- Develop mechanical, electrical, and firmware production line tests for novel COVID-19 ventilator
- Coordinate with contract manufacturers to enhance manufacturing and testing capabilities

Formula SAE Electric Club

July 2019 – May 2020

Lead Engineer - Rear Suspension

- Prototyped suspension geometry by determining instant centers and roll centers in various states of compression and droop
- Designed all suspension components, including, but not limited to, knuckles, control arms, bell cranks, and mounting brackets in Solidworks
- Ran FEA on all suspension components using Solidworks Simulation to determine effectiveness
- Presented and defended rear suspension system in successful design review

Medical Device Company

July 2018 – December 2018

R&D Engineering Co-Op

- Developed clinically relevant test fixture and protocol to quantify the characteristics of arthroscopic instruments
- Created detailed parts, assemblies, and technical drawings of test fixture utilizing Solidworks
- Improved mechanical fixture design, test method parameters, and test protocol by applying root cause analysis, fishbone diagrams, and repeatability studies
- Conducted statistical analysis using Minitab software (normality tests, 2-sample T-test, ANOVA, regression, capability studies) to evaluate repeatability of test fixture

Medical Device Company

July 2017 – December 2017

Product Design Co-Op

- Designed test fixtures such as force gauge mounts and power supply housings in Solidworks
- Fabricated test fixtures using 2-axis mill, lathe, and hand tools
- Reverse engineered competitor's product to identify design flaws and improvement opportunities
- Wrote and executed test procedures to evaluate performance of mechanical and electrical systems