Mason Averill

16averillm@gmail.com

260-223-4281

Linked In
(www.linkedin.com/in/masonaverill)

Portfolio
masonaverill.com

Skills

- Solidworks, including extensive experience in simulation packages
- Autodesk Inventor and AutoCAD
- Thermal Desktop
- SINDA/FLUINT
- Ansys
- PTC Creo (familiarity)
- Solid Edge
- Ultimaker Cura
- Autodesk Vault
- Simulink
- LabVIEW
- RSLogix 5000
- MATLAB
- Python (familiarity)
- C++
- G and M Coding Experience
- Java
- Visual Basic
- Linux Experience
- Arduino and Raspberry Pi Experience
- Pneumatic/Hydraulic Systems Experience
- Excellent Problem Solver
- Strong Hands-On Background

Awards and Certificates

- CSWA-Mech. Design
- CSWA-Simulation
- National Science Foundation Grant Recipient (2017-2018)

Objective and About Me

A strong hands-on background paired with a plethora of multi-disciplinary coursework and extensive professional experience ensures the ability to surmount any challenges encountered to accomplish assigned tasks. I am especially interested in positions requiring considerable analysis coupled with the use of advanced software packages. Some of my hobbies include dirtbiking, snowboarding, and hiking.

Education

Master of Science in Mechanical Engineering May 2022
Purdue University
GPA: 3.97/4.00

Bachelor of Science in Mechanical Engineering December 2021
Purdue University
Minor in Physics
GPA: 3.92/4.00

Bachelor of Science in Mathematics May 2022
Purdue University
GPA: 3.91/4.00

Experience

Mechanical Engineer: Thermal Analyst
L3Harris Technologies, Fort Wayne, IN June 2022-Current
- Part of the Space and Airborne Systems market segment
- Daily use of Thermal Desktop, MATLAB, Simulink, and similar to perform analyses

Mechanical Engineer: Thermal Analyst Intern
L3Harris Technologies, Fort Wayne, IN May 2021-August 2021
- Worked in the Space and Airborne Systems market segment as a thermal analyst
- Created intricate thermal models in Simulink and an accompanying generalized MATLAB script to extract information from the Simulink models. Also utilized these tools to perform numerous design studies and to prepare for design reviews
- Performed correlations and comparisons between thermal models that were developed using different software packages/techniques
- Assembled a model to evaluate the effective thermal conductivity at a polymer-metal interface
- Created numerous technical memos on other analyses and trade studies

Mechanical Engineering Intern
Ultra Electronics Undersea Sensor Systems, Columbia City, IN May 2020-August 2020
- Thermal analysis and design implementation for battery charger to be used in extreme environments
- Research, development, testing, and automation preparation/planning for new hydrophone design to be manufactured at 750k+ units/year
- Conducted Design of Experiments analyses for multiple parameters influencing the hydrophone's performance

Mechanical Engineering Intern
Deister Machine Company, Fort Wayne, IN May 2017-August 2017
- Supported integration from 2-D to 3-D modeling by constructing 3-D models in Autodesk Inventor from AutoCAD drawings
- Utilized iPart feature of Inventor to generate variable similar-geometry parts sorted into drop-down menus to ease implementation of parts into assemblies
- Generated new parts and assemblies for other assigned projects, including safety guards meeting OSHA requirements and snap fit neoprene seals for weather protection

Self Employed
Mild to Wild LLC, Decatur, IN August 2012-August 2016
- Started a LLC as a joint venture with my brother for automotive repair and performance
- Extremely well versed in technical repairs and performance, including: top and bottom end rebuilds, transmission and clutch swaps, and much more on both petrol and diesel vehicles

Teaching Assistant
Purdue University, Fort Wayne, IN January 2020-May 2022
- Teaching assistant for ME/CE-252: Strength of Materials, ME-253: Statics and Dynamics (ECE students), ME-361: Kinematics and Dynamics of Machinery