Andrew Erickson

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EDUCATION

Michigan Technological University, Houghton, MI

Bachelor of Science in Mechanical Engineering, Minor in Aerospace Engineering

Graduation: Fall 2021

Relevant Coursework: Mechanics of Materials, Aerospace Propulsion, Fluid Mechanics, Computational Fluids Engineering, Circuits & Instrumentation, Mechanical System Design & Analysis, Dynamic Systems

WORK EXPERIENCE

QA1 Precision, Lakeville, MN, May 2018-August 2020 (4 semesters)

Mechanical Engineering Intern | Solidworks models & drawings, Laser Scanning, Additive Manufacturing

- Designed and manufactured production fixtures using additive manufacturing and laser cutting
- Worked with full time engineers on new product development and testing
- Used FARO laser scanning products to create models of existing suspension components and vehicle frames

Michigan Technological University – Information Technology, Houghton, MI, Jan 2017-Present

Classroom & Web Conference Support | Zoom, WebEx

- Provide technical assistance for both classroom and conference room computer systems
- Support video conferences on campus along with local presentations

QA1 Precision, Lakeville, MN, May 2017-August 2017

Mechanical Assembly / Quality Control | CNC Press Break, Laser Cutter

- Operated CNC press break and laser cutter to create sheet metal components
- Performed QC checks on bent parts and welded assemblies

LEADERSHIP/INVOLVEMENT

SAE Blizzard Baja, Michigan Technological University

Team President | Leadership, Team Management, Solidworks, Manufacturing | August 2019-Present

- Leading a team of 30-40 members to design and build a vehicle to compete in the annual SAE competition
- Developing a 4WD vehicle and the new drivetrain components needed for 4WD
- Designing new CV joints and half shafts for the 4WD vehicle

SAE Aero Design, Michigan Technological University

Team Pilot | Team Management, Aircraft Design & Manufacturing, Pilot | August 2016-Present

- Design and build an aircraft to compete in the annual SAE competition
- Pilot the aircraft for testing and the competition
- Integrate autonomous flight systems into the aircraft

PERSONAL PROJECTS

Vehicle Rebuild – Engine Rebuild, Troubleshooted electrical & vacuum systems, Replaced drivetrain components

- Pulled engine with a spun connecting rod bearing
- · Replaced crankshaft, connecting rod, piston, rings, seals, gaskets and clutch
- Diagnosed and fixed problem with 4WD vacuum and electrical systems

3D Printing Farm – Linux, Octoprint API, Octofarm

- Manage a farm of 5 printers for covid face shield production
- Monitor each printer remotely while easily managing files and starting prints

AndrewErickson.github.io – HTML, Volunteering, COVID Response

- Website to host information about my family's face shield operation, all 8000+ of which we have donated
- Host pages documenting various educational and personal projects

TECHNICAL SKILLS

- Proficient with: Solidworks, Matlab, G-Code, Machining, 3D Printing, Piloting Drones & Planes
- Familiar with: C++, HTML, Siemens NX, CAM