

Address:
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Emily Fairfield

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SUMMARY

Third-year mechanical engineering student with two years of internship experience as a manufacturing and mechanical engineering intern at RENK America. Skills in CAD, MS office, hands-on fabrication with metal and wood, and more. Currently a member of the Lunabotics team within the Multiplanetary INovation Enterprise (MINE).

EDUCATION

Michigan Technological University | Houghton, MI
BS Mechanical Engineering
GPA: 3.84

Expected May 2025

Muskegon Community College | Muskegon, MI

2020-2021

Fruitport High School | Fruitport, MI

2021

FIRST Robotics

INTERNSHIP EXPERIENCE

RENK America | Muskegon, MI
Mechanical Engineering Intern

May – Aug 2023

Projects:

- *Engine build log:* Worked with engine mechanics and engineers to create a data tracking spreadsheet that both parties could use. Learned how to use Excel Macros for this project.
- *Dry sump:* Supported an engineer who is working on a dry sump system design. Communicated with multiple suppliers who could help with the design. Created CAD models of hypothetical system components.
- *Engineering Bill of Materials:* Updated a massive engine EBOM to display the CAD model status of components (does a model exist/not exist). Wrote a complex Excel formula to accomplish this.
- *Engine test:* Tracked engine data and broken components for a specific engine test with the build log I created. Updated engineers and executive staff on testing progress daily. Captured images of broken parts and kept track of consumable parts used.

RENK America | Muskegon, MI
Manufacturing Engineering Intern

May – Aug 2022

Projects:

- *Camshaft instructions:* Wrote instructions for the process of camshaft manufacturing using HMS CAPP. Worked with machine operators to determine the correct machines and tools used for each operation.
- *Coolant:* Tracked machine coolant concentrations weekly.
- *3D scanner:* Supported quality engineers in setting up a 3D scanner.

TECHNICAL SKILLS

- MS Office, MS Excel
- MATLAB
- Google Suite
- Creo
- CNC Lathe/Mill Operation
- NX
- 3D Printing
- Metal & Wood work
- Solidworks
- HMS CAPP
- Instructional Writing
- Communication/Presentation

WORK HISTORY

IM Broomball Employee, MTU
Server, Baldwin House Lloyd's Bayou
Customer service/cashier, Orchard Market
General Laborer, RAM Electronics

2023
2022, 2020-2021
2019-2021
2019-2020

INTERESTS

Art | Disc golf | Video games | 3D printing | Robotics | Tennis | Hiking | Japanese language/culture