

Isaac Genther

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SUMMARY

Current Mechanical Engineering Student at Michigan Technological University. Previous experiences include working with robotics and automation, aerospace, and manufacturing.

EDUCATION

Michigan Technological University | Houghton, MI
BS Mechanical Engineering

Expected May 2022

INTERNSHIP EXPERIENCE

BOSS Snowplow

Manufacturing Engineering Co-Op

Jan. 2021 - Aug. 2021

- Designed welding, assembly, and painting fixtures for usage in manufacturing of blade and undercarriage components utilizing PTC Creo alongside Windchill Product Lifecycle Management software .
- Gained understanding of, and utilized lean manufacturing principles such as incorporating poka-yoke into fixture design.
- Performed installation and rewiring of sensor components for robotics and chemical equipment.
- Communicated with co-workers to provide input or gain feedback on fixture components and tooling.

MECHANICAL ENGINEERING PROJECT EXPERIENCE

Keweenaw Rocket Range:

Sep. 2019 - Jan. 2020

Project: Bayer Alka-Rocket Challenge 2019 & 2020

- Performed calculations and helped construct parachutes of necessary size.
- Designed 3D printed mounting components for the recovery system.

Project: Intercollegiate Rocket Engineering Competition 2019

- Handled altimeters and extracted test flight data.
- Performed various simulations to determine needed weights and motor types

Multiplanetary INnovations Enterprise

Jan. 2020 - Ongoing

Project: NASA Lunabotics Competition 2020 & 2021

- Assisted in developing and refining CAD models for final chassis design.
- Calculated forces and performed FEA on a linkage system to orient robotic hopper components.

COMPUTER & TECHNICAL SKILLS

- Siemens NX
- MATLAB
- Autodesk AutoCAD/Inventor
- Creo
- HyperMesh FEA
- Machining & Tolerancing
- 3D Printing
- Simcenter AMESim
- Microsoft Office Suite

LEADERSHIP

Food Representative, Tucker Inn

Sep. 2018 - May 2019

- Provided comments and concerns on behalf of the dorm hall to the campus dining services.

CO-CURRICULAR INVOLVEMENT

Photography Club

Oct. 2018 - Present

Huskies Pep Band

Sep. 2017 - May 2018

WORK EXPERIENCE

Apollo Retail Specialists

May-August 2017/18/19

- Performed resets as part of a team in various stores.