

Zachary Gillish

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Michigan Technological University
BS Manufacturing and Mechanical Engineering Technology
Minor, Enterprise

Houghton, MI

Expected Graduation, Dec. 2024

Academic Experience

Manufacturing Processes: Examining and demonstrating the processes used to improve product quality and efficiency

Electrical Machinery: Fundamental steady-state analysis of DC, AC polyphase, and AC single-phase electrical machines as well as transformers

Parametric Modeling: Developing advanced assemblies using GD&T concepts alongside 3D modeling software

Machine Design I & II: Machine component analysis, particle & rigid plane body kinematics, machine tool studies

Projects/ Employment

The Boeing, Herndon VA

June 2022 - August 2023

Maritime Undersea Systems Engineering, Integration, Test Engineering Intern

- Completed finite element analysis on various components to ensure quality
- Simulated undersea conditions using software and prior data
- Designed concepts for components in limited spaces
- Tracked data and formulated spreadsheets based on various data types

ThermalTech Engineering, Richland MI

May 2021 - August 2021

Engineering Intern

- Communicated with project managers and contractors to update designs on a daily basis
- Plotted and modified drawings to ensure explicit and effective instruction
- Designed solutions to fit customer requirements while keeping material costs down

Multiplanetary Innovation Enterprise - Lunabotics, Houghton MI

August 2021 - Current

Excavation/Mechanical sub-team lead

- Calculated and defined stresses to simulate real-world conditions on the robot
- Designed and fabricated parts for an excavation system
- Led a team of engineers to improve robot performance to meet competition standards
- Completed weekly meetings to show progress made and introduced possible solutions

Technical Skills/Knowledge

Advanced Manufacturing and Machining Processes

NX, AutoCAD, and Solidworks CAD programs

Hydraulic and Pneumatic systems

Residential and Advanced Electronic wiring

Extra-Curricular

Mu Beta Psi National Honorary Musical Fraternity (MTU)

- Completed weekly meetings to update progress made on tasks
- Organized events and services focused towards the music community
- Trained students on information that pertain to the fraternity over a six-week process

Society of Hispanic Professional Engineers (MTU)

- Preparing Hispanic students for careers in STEM
- Creating a network for students to stay connected in the future
- Improving professional skills to prepare students for upcoming careers

Honors and Awards

Academic Honors (Michigan Technological University and High School)

Pavlis Honors College (Michigan Technological University)