

JOSEPH MILLER

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OBJECTIVE

Robotics Engineering student with extensive experience in mechanical design and automation, including hands-on internships and a strong academic record. Seeking to apply my skills in SolidWorks, part design, and safety assessments to contribute to innovative engineering projects and advance technological solutions.

EDUCATION

BS Robotics Engineering | Michigan Technological University

2021-2025

GPA: 3.79 | Department GPA: 4.0

EXPERIENCE

Mechanical Engineering Intern

May 2024 – Present

Ascential Technologies, Medical & Life Science

Independently designed 50+ support structure and safety guarding parts for an automated suture needle manufacturing machine • Utilized design intent for precision adjustments to meet medical standards for 99% accuracy • Assisted with FANUC robot calibration for visual part tracking

Mechanical Engineering Intern

May 2023 – Aug. 2023

Ascential Technologies, Industrial Manufacturing

Worked independently to accelerate project release timelines by creating innovative, detailed drawing for custom parts • Created CAD assemblies to be manufactured and installed on automation machines • Updated and verified pneumatic schematics to reflect the actual machine specs • Verified and signed off on safety risk assessments

Mechanical Team Lead

Jan. 2023 - Present

Multiplanetary Innovation Enterprise, DIVER Team

DIVER is a autonomous underwater robot designed to map and collect data from flooded mines.

Responsible for task delegation and schedule accountability • Use design for manufacturing to develop custom hardware • Research and coordinate with suppliers • Conduct FEA to ensure compliance with design requirements

SKILLS

- SolidWorks
- GD&T
- Manufacturing Drawings
- Pneumatics Schematics
- Safety Risk Assessment
- Additive Manufacturing
- MATLAB
- Java
- ROS
- C Programming
- ARM Assembly
- Linux

ACHIEVEMENTS & CERTIFICATIONS

Granted Stratasys scholarship for 3D printing • 10 Years of FIRST robotics experience (FLL, FTC) • 7 years of CAD and 3D printing experience • Certified SolidWorks Associate (CSWA) • Certificate from MIT in Additive Manufacturing for Innovative Design and Production