

MILES SCHEETZ

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Work Experience

Mechanical Engineering Co-op

January 2026 to Present

Hyperion Solutions, LLC – Memphis, TN

- Computed stresses on elevator components with hand calculations and FEA to verify ASME A17.1 compliance
- Released SolidWorks models and production drawing packages for 4 new elevator component assemblies, including BOMs, GD&T, material specifications, and manufacturing notes
- Prototyped spring-loaded encoder wheel assembly; iterated 3D-printed concepts, tested preload mechanisms, and evaluated tire materials to reduce slippage
- Revised 100+ pages of traction machine manuals for installation clarity, maintenance procedures, and troubleshooting guidance
- Built internal brake troubleshooting platform using Next.js, FastAPI, SQLAlchemy, and PostgreSQL to assist field service team in diagnosing machine brake issues from reported symptoms

Manufacturing Engineering Co-op

January 2025 to January 2026

Entegris, Inc. – Chaska, MN

- Qualified 80+ products on secondary machines to increase routing flexibility and reduce capacity bottlenecks
- Drove 15 Management of Change (MOC) projects to improve machining processes
- Initiated, qualified, and implemented 130+ ECRs/ECOs for manufacturing process changes
- Programmed Rockwell PLC and HMI for controlling exhaust fan system with ladder logic

Rotary Press Operator

October 2021 to January 2025

Innovize, LLC – St. Paul, MN

- Obtained 3+ years of hands-on manufacturing experience setting up rotary presses and diagnosing mechanical issues
- Coordinated assembly line with 1–5 technicians during medical device production runs
- Spearheaded lean project for Medtronic Oval Tape production, improving process reliability by 230% by implementing system to detect and alarm when input material is low

Projects & Leadership

Bethel University Rocket Club

- Built fiberglass rocket for 2025 NASA Space Grant Consortium Midwest Competition; placed 1st out of 13 teams
- Conducted FEA on custom-made rocket components with SolidWorks
- Designed and constructed an avionics bay using Arduino to track and store flight data
- Developed and taught 5-week training curriculum on rocketry basics to 10+ new recruits
- Mentored 10+ students on academic performance and career development
- Achieved Level 2 High Power Rocketry certification under NAR

Railgun Hobby Project

- Calculated projectile kinematics and capacitor discharge behavior in Mathematica to determine design criteria
- Modeled railgun body in SolidWorks with copper rails, 3D-printed components, and neodymium magnets
- Designed unique spring-loaded armature to enhance rail contact and decrease wear on rails

Education

B.S. Mechanical Engineering

Expected graduation May 2027

Bethel University – St. Paul, MN

August 2023 to Present

- 65 credits, 3.56 GPA, Dean's List Spring and Fall 2024
- Relevant Coursework: Engineering Materials and Manufacturing, Electronics, Classical Mechanics, and Fluid Dynamics
- Member of Rocket Club and Sigma Pi Sigma honor society

Inver Hills Community College – St. Paul, MN

September 2022 to May 2023

- 20 credits, 3.75 GPA

Skills and Certifications

- Certifications: CSWP; CSWPA Sheet Metal, Weldments, Surfacing, Drawing Tools; lean manufacturing (MFRALL Certified Lean Practitioner); NAR High Power Rocketry Level 2; forklift certified
- Skills: SolidWorks, SolidWorks Simulation FEA, 3D-printing, Arduino, Python, MS Office, CNC/Industrial Machining, Medical Device QMS, GD&T, Rockwell ladder logic, PLC programming, SAP ERP, hand calculations, trade studies, technical writing, project management