Mathias Reweta

mathiasreweta@gmail.com | (224) 714-8845
Chicago, IL

EDUCATION

Northwestern University Evanston, IL
Bachelor of Science in ***Mechanical Engineering*** with a ***Concentration in Design*** Aug. 2022
Cumulative GPA: **3.26/4.00**
Relevant Courses: Computer Integrated Manufacturing, Additive Manufacturing, Dynamic Systems, Industry 4.0, Thermodynamics, Machine Dynamics, Heat Transfer, Fluid Mechanics, Mechanics of Materials, Project Management, Mechanical Design and Manufacturing, Intro to Mechatronics, Engineering Analysis, Public Speaking

ENGINEERING SKILLS

- NX, Creo, and Solidworks CAD and CAM
- Proficient in C, Python, MATLAB coding
- 3d printing, injection molding, CNC machining, and rapid prototyping
- Vibration tables, mill machine, drill press, band saw, and other workshop machinery
- Trained in GD&T ASME Y14.5-2018 Standards
- Waterfall and Agile project management, and technical report writing
- Microcontroller use, circuit building, and circuit design

WORK EXPERIENCE

Grayhill, Inc., *Mechanical Design Engineer II* Aug. 2024 – Feb. 2026

- Worked in the Military Solutions Group on various operator interface components and systems
- Designed an electro-mechanical control panel for gym machinery from conception to release, restarted a rugged keypad program, maintained products in production, and assisted the Health Solutions Group
- Designed for manufacturing, injection molding, casting, and machining out of rubber and various metals and plastics; designed test plans, tested, and wrote reports; researched new technology; built prototypes

Applied Engineering, Inc., *Design Engineer* Apr. 2023 – Apr. 2024

- Collaborated with a major agribusiness client, CNH Industrial, on their vehicle integration projects
- Designed and drafted key components of the chassis of CNH Magnum Large and Small Frame Tractors, such as assembly packages, roll bars, support frames, and cab floor parts in Creo
- Worked in cross functional teams to assist with hydraulic support and FEA of systems that fell between two teams, as well as perform failure analysis on parts

Molex, *Design Engineer* Oct. 2022 – Feb. 2023

- Worked in Datacom Specialty Solutions, designing new-gen backplane connectors and datacenter solutions
- Assisted in major projects, drafted parts, performed tolerance and failure analysis, designed test fixtures, rapid prototyped, gathered and compiled data for presentation, prepared FEA's and more

ENGINEERING PROJECTS

Mechanical Engineering Senior Capstone Project, Northwestern University Jan. 2022 – June 2022
Client: Northwestern Baja SAE Team

- Designed and manufactured a custom differential solution to increase the functionality of a standard open differential for efficient switching between two and four-wheel drive modes, without a transfer case
- 3D printed viable parts out of carbon fiber reinforced nylon, CNC machined custom metal parts

HIV Treatment Implant Manufacturing System, Northwestern University Jan. 2022 – Mar. 2022
Client: Professor Ping Guo

- Worked with an Arduino-controlled robot arm to automate a process to seal the end of a tube used to house implants for an experimental drug to cure HIV
- Designed the layout of the sealer, arm, and tubes, and built supports like tube dispensers to aid the process