

Myles Pratt

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Education

B.S. Mechanical Engineering | Milwaukee School of Engineering | GPA: 3.89 | Expected Dec 2026

Internship and Co-Op Experience

Mechanical Engineering Intern, NVIDIA – Santa Clara, CA May 2026 – Aug 2026

- Led the mechanical redesign of a GPU module cold plate for a cooling research Design of Experiment (DOE) that compares copper baseline hardware with proprietary, higher thermal conductivity materials.
- Coordinated international vendor Design for Manufacturability (DFM) reviews for GPU cold plate redesign by aligning mechanical requirements and risk assessment for design changes.
- Performed FEA and tolerance analysis on structural attachment hardware for an orbital data center assembly to evaluate mechanical pressure distribution across the cold plate.

Design and Structural Analysis Intern, Amentum (NASA Test Lab) – Huntsville, AL June 2025 – Aug 2025

- Designed and modeled a thermal test fixture in Creo for an 18-ft commercial space flight article undergoing a weeklong vacuum test, reducing prep time by 50%.
- Conducted FEA of structural test equipment using FEMAP and NX Nastran, validating worst-case loading performance and recommending design changes to meet safety margins.

Modeling and Simulation Intern, NASA – Houston, TX January 2025- May 2025

- Developed a MATLAB/Simulink simulation tool to assess commercial space station attitude control performance, analyzing how thruster positions affect orientation, orbital response, and propellant use.
- Modeled dynamic response delay in Simulink of a DC motor and gearbox simulation, creating a 98% accurate representation of gimbal behavior in closed-loop gyroscope control simulations.

Mechanical Engineering Co-Op, Regal Rexnord – Milwaukee, WI May 2024 – Dec 2024

- Designed a clamping fixture to help technicians streamline plastic coupling guard cutting operations, contributing to an estimated \$70,000 in annual cost savings.
- Analyzed test data for NPD Solar Farm gearboxes undergoing 10,000 torque cycles using both Python and Excel to organize and present findings, leading to the selection of a stable torque gear material for production.

Mechanical Engineering Project Experience

Undergraduate Research — Mechanism Design Engineering

- Modeled, synthesized, and prototyped a novel variable-topology mechanism architecture for energy-efficient robotic pick-and-place manufacturing applications.
- Built an open-source MATLAB tool that designs mechanisms automatically based on user-defined constraints, speeding up early-stage concept generation for mechanism designers.
- First-authored research accepted for presentation at the ASME IDETC 2026 Conference in Houston, Texas.

Senior Capstone — Precise Metered Supplement Dosage | Team of 4

- Designed, developed, and validated an automated food-grade powder and liquid dispensing system for pet supplement startup Nutris RX to support new product development and formulation testing.
- Led the SolidWorks CAD design of a pinch-valve dispensing mechanism and implemented control logic for a servo and vibration motor to manage powder flow and allow for adjustable liquid dispensing.
- Achieved $\pm 2.5\%$ mass accuracy across a 48g to 630g dispensing range over 100+ consecutive jars while meeting requirements for food safety.

Skills

Modeling / Analysis: MATLAB, SolidWorks, Simulink, Creo Parametric, FEMAP, Ansys Mechanical, Python

Prototyping: Mechatronics, 3D Printing, Laser Cutting, Lathe, GD&T, DFM, Tolerance Stack-Ups

Leadership Experience | Co-Curricular Involvement

Leadership Board | MSOE High Powered Rocketry Club & AIAA | Sept 2022 – present | 6 hours per week

Team Lead | Mechanism Design Club | Sept 2025 – present | 2 hours per week