# **Matt Lasselle**

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# **Summary:**

Passionate about advancing aerospace technologies through innovative mechanical design and analysis. Mechanical engineer seeking full-time opportunities, with strong skills in design, data analysis, and manufacturing. Experienced in the design, testing, and validation of mechanical systems and assemblies.

#### **Education:**

Iowa State University, College of Engineering

Bachelor of Science, Mechanical Engineering

Expected Graduation: May 2026

GPA: 3.44

## **Professional Experience:**

# Stratasys - Test Engineer Intern

May 2025 - August 2025

- Developed and programmed a compression test method on a MTS Criterion Model 43 using TestSuite TW Elite, enabling improved data logging and more accurate measurement of a wide range of material properties.
- Assessed material data to establish new metrics for defining compressive yielding to improve data provided to customers.
- Reduced required compression testing specimens by analyzing the effect of slenderness ratio on compressive yield strength, while maintaining ASTM D695-10 compliance.
- Automated data formatting to increase post-test analysis efficiency and implemented safety measures in test methods to improve lab safety and protect equipment and operators.

# **Club Experience:**

#### **Cyclone Rocketry Club**

Vice President of Engineering

June 2025 - Present

• Guided team leads in defining technical objectives and project scope for the club's competition rocket, resulting in a successfully planned budget, action plan, vehicle size, and onboard technologies.

Mechanical Co-Team Lead

June 2024 – June 2025

• Led a multidisciplinary student engineering team through the design, fabrication, and integration of a highaltitude pressure vessel using CAD, FEA, and traditional manufacturing techniques.

Honeywell FM&T Rocketry Student Launch Contract Team Member

August 2024 – Present

• Designed and fabricated avionics fixturing, incorporating FEA and ANSI tolerancing standards; presented finalized solutions to external sponsors for review and approval.

#### **Projects:**

- Designed and manufactured a 3D printer, validated platen heating via thermocouple readings, confirmed part
  mechanical strength through tensile and compression testing, and established reliable extrusion consistency and
  dimensional accuracy through measurement analysis.
- Fabricated a load frame to test 3D-printed components and assemblies, incorporating data logging, writing, and visualization within an embedded system.
- Modeled and simulated an active roll control rocket using CAD and CFD, integrating sensors and actuators through embedded systems programmed in C++ with onboard data collection.

### **Technical Skills:**

- Mechanical Design
- SOLIDWORKS CAD, FEA, and CFD
- Data Collection and Analysis
- Additive Manufacturing

- Test Method Development
- MTS TestSuite TW Elite