

Maddox Gonzalez

panthermg98@gmail.com | (786)-250-7263 | Portfolio: <https://maddoxg-mecche.github.io/>

EDUCATION

University of Central Florida

Expected Graduation: Fall 2026

Bachelor of Science in Mechanical Engineering

GPA: 3.573

Pursuing Masters in Aerospace Thermofluids through BS-MS accelerated program

Distinctions: Dean's List | President's Honor Roll

WORK EXPERIENCE

UCF Undergraduate Learning Assistant

Jun 2025 – Present

Instructor

- Learning in a collaborative math lab environment by guiding students through coursework, clarifying key concepts, and promoting independent thinking for college algebra through Calculus I.

Undergraduate Teaching Assistant (Fluid Mechanics)

Dec 2025 – Present

Teacher's Assistant

- Support the professor through grading, leading review sessions, and assisting students with fluid mechanics concepts and problem solving.

TECHNICAL SKILLS & CERTIFICATIONS

SolidWorks Associate | Certified Fusion 360 User | FE Mech. Exam (passed) | C | Python | MatLab | Siemens NX | ANSYS Fluent

PROJECTS

Wind Tunnel

Jan. 2025 - Present

Personal Project

- Designing and building a small-scale wind tunnel to study airflow characteristics and measure velocity, drag, and pressure on test models
- Utilizing ANSYS Fluent to simulate flow conditions and compare experimental results against theoretical results

Slider-Mesh Transmission

Sep. 2025 - Nov. 2025

Personal Project

- Designed and modeled a functional 3D-printed slider-mesh transmission to demonstrate mechanical power transfer.
- Prototyped and iterated gear designs to improve tolerances and functionality using additive manufacturing.

IDEAS: Cable Stayed Bridge

Sep. 2024 - Dec. 2024

Team Project - Lead Engineer

- Designed and constructed a real model of a modern cable stayed bridge utilizing CAD software and 3D printing
- Conducted tests on load-bearing capacity and stability at various points to evaluate bridge performance

Knights Experimental Rocketry (KXR)

Aug. 2023 – May. 2025

Member of HPR Recovery Team & IREC Aerostructures Team

- Oversaw the recovery phase of the club rocket with a small team, including apogee separation and parachute deployments
- Analyzed and optimized rocket components, such as: fins, materials, and nose-cone shape to enhance aerodynamic performance and stability

PROFESSIONAL DEVELOPMENT

NASA L'SPACE Mission Concept Academy

Aug. 2024 - Dec. 2024

Team Project - Lead Engineer

- Collaborated on a hypothetical team mission task to identify and evaluate lunar lava pits for potential thermal isolation and structural stability as candidates for long-term lunar habitation
- Designed Thermal Management & Power Systems for our spacecraft to ensure mission requirements are met

SolidWorks Student Leadership Program

Sep. 2025 - Present

Job Experience

- Participating in workshops and collaborative assignments to enhance proficiency in SolidWorks. I am a Certified SolidWorks Associate, and am working towards becoming a Certified SolidWorks Professional.

Siemens Xcelerator Academy

Dec. 2024 - Dec. 2025

Job Experience

- Developing an understanding of Siemens NX CAD through hands-on coursework and material
- Pursuing a Siemens NX Design Associate Certificate

Knights Shadow Program at Kennedy Space Center

Aug. 2024

Job Experience

- Selected in University's competitive matched, single-day Shadowing program
- Shadowed numerous Subject Matter Experts and gained understanding of positions, career paths, and skills needed to become successful in the industry