

Maddox Gonzalez

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

EDUCATION

University of Central Florida

Bachelor of Science in Mechanical Engineering

Pursuing Masters in Aerospace Thermofluids through BS-MS accelerated program

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

Expected Graduation: Fall 2026

GPA: 3.573

WORK EXPERIENCE

UCF Undergraduate Learning Assistant

Instructor

Jun 2025 – Present

- 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)

Teacher's Assistant

Dec 2025 – Present

- 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

Personal Project

Jan. 2025 - Present

- 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

Personal Project

Sep. 2025 - Nov. 2025

- 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