JULIO WALL

(407) 437-1878 juliowall3@gmail.com Julio Wall

EDUCATION

University of Central Florida **Graduation: Dec 2024**

Bachelor of Science in Aerospace and Mechanical Engineering **GPA: 3.39**

Valencia college **Aug 2019 - Jul 2021**

Associate Degree in Arts

EXPERIENCE

Undergraduate Teaching Assistant (ULA)

Intro to Vibrations and Controls - Dr. Sudeshana Pal **August 2024 – Present**

- Conducted weekly office hours and review sessions to provide support to students, clarifying complex topics and solving practice problems
- Graded assignments and provided constructive feedback to enhance student learning
- Held office hours and review sessions to assist students with challenging concepts

Society of Automotive Engineers (SAE) Aero Design **Aug 2023 – May 2024**

Senior Design - Technical Design and Manufacturing Lead

- Presented an innovative design to Lockheed Martin sponsors, representing UCF on an international level at the prestigious 2024 SAE Aero Design Competition
- Applied principles of flight mechanics and aerodynamics to design and produce a micro-class RC airplane, managing the development of the wings, fuselage, landing gear, payload, and control surfaces
- Conducted comprehensive trade studies and performance analyses to select an optimal layout, balancing mission performance, schedule, and cost constraints

Florida Space Institute (FSI)

Engineer - Project Manager **Sep 2022 – Dec 2023**

- Led a four-member team in innovating experimental hardware, simulating dust aggregate collisions in microgravity to mimic the early formation of small icy bodies in the Solar system
- Designed, manufactured, printed, optimized, and sliced 3D models for different lab experiments
- Executing regolith simulation experiments in microgravity on a bi-monthly basis

3U CubeSat **Jan 2023 – Apr 2023**

- Led the design and fabrication of a 3U payload for microgravity asteroid soil research.
- Oversaw payload assembly and collaborated with the rocket team to ensure successful integration
- Conducted testing on a 3U CubeSat, which sustained 90% structural integrity following a 300-foot crash

EXTRACURRICULAR

Emergency Insights

Entrepreneurship **Jan 2024 – Present**

- Placed 4th out of 60 companies in the Joust New Venture Competition,securing an award of $2,000 and highlighting the strong potential of the company
- Conducted extensive research to create detailed reports, develop the business model, and identify market opportunities
- Introduced the company to high-level industry professionals, effectively showcasing our business model and vision

Propulsion and Energy Research Laboratory (PERL)

Undergraduate Research **Feb 2022 – Aug 2022**

- Followed a procedure for particle imaging velocimetry (PIV) testing to analyze detonation waves
- Collaborated with graduate research students to conduct controlled static firing experiments Rotation Detonation Engines (RDEs)

SKILLS

Languages: English, Spanish

Design and Modeling Tools: SolidWorks, Matlab, Ansys, OpenRocket, and Cura

Programming: Python, C programming, and LaTeX

Poster presentations: Gentle Collisions between Icy Dust Aggregates with Applications to KBO Formation