

JOSE ASCENCIO-ROJO

352-653-9539 | joseascenciorojo@gmail.com | [linkedin.com/in/jose-ascencio04](https://www.linkedin.com/in/jose-ascencio04) | U.S. Citizen

Education

University of Central Florida

Orlando, FL

Bachelor of Science in Mechanical Engineering

Expected Graduation: December 2027

Skills and Certifications

Design & Software: Siemens NX, Teamcenter, GD&T (ASME Y14.5), SolidWorks, OpenRocket

Certifications: High-Power Rocketry Level 2 (Tripoli), SolidWorks (CSWA), AutoCAD User

Fabrication/Testing: Composites, 3D Printing, Laser Cutting, Soldering, Recovery Pyrotechnics

Languages: English (Fluent), Spanish (Fluent)

Experience

United Launch Alliance (ULA)

May 2026 - August 2026

Centaur V Structures Design Intern

Decatur, AL

- Designed a flight-hardware bracket in Siemens NX to support a new sequencing system, performing grip length calculations for aerospace fasteners, and applying GD&T.
- Developed and presented 5 engineering drawing changes affecting 9+ Centaur V drawings to a 5 member engineering review board, supporting hardware configuration and implementation.
- Improved manufacturability of upper stage MLI engine blankets by updating Siemens NX models with X-Form and Through Curve Mesh, eliminating routing conflicts encountered during technician installation.
- Led an engineering change for the ATZ LO2/LH2 plate bushing by revising drawing requirements to require post-press reaming when necessary, eliminating six recurring quality notifications and avoiding an estimated \$30K–\$60K in engineering rework costs.
- Redesigned an ECS screw for additive manufacturing by removing unnecessary material, reducing machining time by two days and contributing to \$12,000 in cost savings per vehicle.

Projects

L2 High Power Rocketry | Project Manager

June 2025 - August 2025

- Designed, built, and launched a 74-inch, 7 lb rocket using SolidWorks and OpenRocket simulations, achieving a 2,470 ft apogee and earning Tripoli Level 2 certification with full recovery.
- Performed recovery and structural analyses, including aeroelastic flutter, black powder charge sizing, and parachute snatch force, establishing a 2.04 safety factor under flight loads.
- Enhanced rocket performance by CAD modeling and 3D-printing 2 critical components (avionics coupler and nosecone) and integrating an EggTimer flight computer, achieving drogue deployment at apogee and main deployment at 800 ft.

Leadership / Extracurricular

Knights Experimental Rocketry (KXR)

January 2026 - Present

Level 2 High Powered Rocketry Lead

University of Central Florida

- Lead 15 students per semester through Level 2 high-power rocketry, covering dual-deployment design, OpenRocket simulations, hand calculations (drag, flutter), manufacturing, and ground testing.
- Lead design reviews and pre-flight checks for stability, recovery electronics, deployment systems, and manufacturing to ensure rockets meet Level 2 certification and safety requirements.

Society of Hispanic Professional Engineers (SHPE)

May 2025 - Present

Professional Development Chair (2026) Conference Director (2025)

University of Central Florida

- Leading professional development program for a 250+ member SHPE chapter, including resume reviews, mock interviews, LinkedIn workshops, and internship preparation.
- Manage 7 directors across Conference, Resume, Internship, and ResearchSHPE roles to expand access to career, conference, and research opportunities.
- Managed preparation for 50 sponsored SHPE Conference attendees as Conference Director, with 87% of attendees securing at least one conference interview.

Mexican Student Association (MEXSA)

August 2024 - Present

Vice-President (2025) Treasurer (2024)

University of Central Florida

- Lead chapter operations and coordinate social and cultural events for 70+ members, collaborating with the executive board on event planning, logistics, and member engagement.