Ethan Tampa

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Education	The University of Alabama Minors: Aerospace Engine GPA: 4.0/4.0 (6x President	, Tuscaloosa, AL ering and Spanish	Graduating: Spring 2026
Skills	CAD (SolidWorks, Onshape), FEA Analysis, 3D Printing, Cryogenic Handling, MATLAB, Python, CNC and Manual Machining, Microsoft Office, Seal of Biliteracy in Spanish		
Work Experience	Astronics, AES	June 2024 – August 2	2024 (Returning Summer 2025)

Mechanical Engineering Intern

- Led procedure development for contact resistivity data collection for busbar applications. Interacted with technicians and engineers, worked with pressures up to 10KSI, and created a bolt torque call-out verification method as a result.
- Undertook optimization of additive manufacturing with ULTEM 1010 filament, allowing in-house prototyping and cutting outsourcing costs by 90%.
- Collaborated with senior engineers and managers to convert solid model drawings to envelope drawings in SolidWorks to preserve proprietary information while promoting customer product communication.

Project Experience

Alabama Rocketry Association, University of Alabama

August 2022 - Present

Testing Lead – Bipropellant Kero-LOX Rocket Project Team

- Responsible for managing the testing team, deadlines, tasks, the cryogenic handling team, and heading all high-risk testing operations.
- Implemented igniter design that will self-eject after self-sustaining combustion.
- Developed LOX filling procedures and techniques to handle cryogenics safely and to measure the fill rate of a cryogenic liquid on a limited budget.
- Fabricated a mobile water flow and static fire test stand to safely transport the propulsion/feed system between the laboratory and testing area. Responsible for component placements and structural design.
- Drove design requirements for a water deluge system and safety protocols according to FAA research for upcoming engine hot fire tests with blast energy equivalent of more than 10 lbs. of TNT.
- Manufactured three conical graphite nozzles according to design drawings utilizing lathe and bandsaw manual machining.

Honors and Awards Presidents List - University of Alabama, National Merit Scholar, Honors College