Jacob Norris

U.S. Citizen | (254) 447-4196 | jacobnorris7@gmail.com | linkedin.com/in/jacobnorris7 | Austin, TX

EDUCATION

B.S. in Aerospace Engineering, The University of Texas at Austin — Expected Graduation: Dec 2026

Materials Science and Engineering Minor — GPA: 3.42 / 4.0

- Relevant Coursework**:** Fluid Mechanics, Flight Dynamics, Experiments in Materials Science, Engineering Computation, Engineering Design Graphics, Rocket Engineering Practicum

WORK EXPERIENCE

Falcon Certification Intern, NASA – Huntsville, AL — Jun 2025 - Aug 2025

- Developed Power BI visualization platform for program management integrated with JIRA to display Falcon 9 mission risks, issues, and open work at the component level, enhancing communication and collaboration across engineering and program teams.
- Optimized Falcon 9 hardware certification efficiency for NASA's Commercial Crew Program by building workflow tools and automating issue acceptance processes using Python across JIRA and SpaceX's WARP.

Falcon Test Engineering Intern, SpaceX – McGregor, TX — Jan 2025 - Apr 2025

- Operated on-console though Falcon 9 ATP campaigns, autonomously coordinating with technicians, executing powerup procedures, and supporting troubleshooting across integrated systems.
- Owned resolution of 40+ feedback items, leading the team in total closures overhauling test documentation to eliminate redundancies, minimize operator errors, and increase test throughput across Falcon 9 ATPs.
- Resolved 25+ issue tickets across pneumatics, cryogenics, propulsion, structures, and avionics systems by coordinating with responsible engineers, build reliability, technicians, and operators to develop and release detailed planning and work instruction to restore systems to operational expectations.
- Designed NX models and developed automation control scripts to enhance RP-1 nitrogen venting systems, improving site-wide safety and operational autonomy through hardware and software upgrades.

Mechanical Engineering Intern, Infinitum – Round Rock, TX — May 2024 - Aug 2024

- Designed and built a test stand to evaluate and certify motors for compliance with IP65 standards.
- Analyzed and qualified a new 3hp gearbox system based on AGMA standards using hand calculations, SKF QuickPro Sim, and SolidWorks Simulation; created PowerPoint presentations and Excel reports for documentation throughout the process.
- Conducted detailed research on the material durability of various thread strengths on housing units.
- Assembled 30+ of experimental motors from technical drawings for testing applications.

ORGANIZATIONAL EXPERIENCE

Senior Test Engineer/Test & Launch Ops Lead, UT Longhorn Rocketry Association — Aug 2022 - Present

- Owned SolidWorks design of the fluid panel and test stand to enhance safety and autonomy, and specifying pneumatic valves, solenoids, check valves, and relief valves to meet system requirements.
- Led the rebuilding of the fluid panel, planning and coordinating tubing fabrication operations including cutting, flaring, and bending to support final system assembly.
- Utilized Matlab and SolidWorks to simulate and model design variations of the Taurus hybrid engine.

Fluids Engineer, UT Texas Rocket Engineering Lab — Aug 2023 - Nov 2024

- Routed fluid lines between pressurization system, LOx, and fuel tanks, sourcing and selecting appropriate fittings (ORFS, ORB, JIC, etc.) to ensure compatibility, safety, and optimal flow performance.
- Collaborated on the assembly and integration of fluid systems for Halcyon's propulsion architecture.

SKILLS AND HONORS

Technical: Solidworks, Python, Atlassian, Siemens NX, Inventor, Microsoft Suite, C++, Labview, Matlab, Windows
Certifications: 3D Printing, Machine Shop, Cleanroom, Laser Cutting, Compressed Gasses, Cryogen Safety, ITAR
Honors: Honorary Crew-11 Flag Raising Honoree, NASA High School Aerospace Scholar, PMMI Family Scholar, Education Abroad Photo Contest, Longhorn Lens Winner