

LIAM NANCE

Graduate Aerospace Engineer | Propulsion | Compressible Flow | Astronautics | **U.S Citizen**

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EDUCATION

Arizona State University

MS - Aerospace Engineering (Astronautics)

- GPA: 4.00/4.00
- Relevant Coursework: Rocket & Aircraft Propulsion, CFD, Spacecraft Systems, Advanced Aerodynamics

Tempe, AZ

Expected May 2026

BSE - Aerospace Engineering (Astronautics)

- GPA: 3.91/4.00, *Summa Cum Laude*

Graduated May 2025

PROGRAMS AND PROJECTS

Aphrodite 1 - Theoretical Rotating Space Station

Aug, 2024 - May, 2025

- ASU Capstone Project. Worked in a team of 7 Aerospace Engineers.
- Thermal Analysis lead. Designed a collapsible radiator system integrated with internal fluid loops and heat exchangers.
- Designed an 8-DOF robotic arm for in-orbit assembly and maintenance using CAD and 3D printing.
- Performed materials and coatings trade studies based on thermal emissivity, longevity, and MMOD resistance.

Thorough Analysis of Ramjet and Scramjet Flow - MATLAB

Dec, 2025

- Developed a MATLAB-based performance tool for non-isentropic ram-compression Brayton Cycle engines.
- Enabled parametric studies on Mach number, flight altitude, internal flow speeds, maximum material temperatures, isentropic efficiencies, pressures, ISP, and TSFC for engine optimization.

Spaceworks at ASU - NASA JPL Partner Program

Aug, 2024 - Aug, 2025

- Applied the NASA standard procedure and documents in a professional team setting. Visited the JPL Campus.
- Lead engineer and designer for the construction of an "Earth Lander" which dropped from 100+ feet, and successfully delivered a payload to the ground. Used CAD and CFD for systems design, in addition to physical modeling.

Rigorous Analysis of Liquid Rocket Engine (LRE)

Dec, 2024

- Calculated flow properties of LOX/LH₂ at 15+engine locations, including preburners, turbines, injectors, and nozzle.
- Identified key engine parameters such as thrust, temperature limit, maximum flow velocity, and engine efficiency.
- Analyzed LRE performance trends, limits, and nuanced internal interactions.

Boy Scouts of America - Eagle Scout

- Eagle Scout with 10+ years of leadership, project planning, and team coordination experience.
- Completed 500+ hours of community service, including planning and executing large-scale service projects.

WORK EXPERIENCE

Chas Roberts Plumbing and AC

Peoria, AZ

CAD Drafter

Aug, 2024 - Present

- Design detailed AutoCAD HVAC drawings containing hundreds of components, adhering to engineering specifications and county standards.
- Review technical drawings and specification sheets to ensure proper system integration from design through implementation.

Greystar Real Estate Partners

Tempe, AZ

Leasing Assistant

Mar, 2023 - Jun, 2024

- Acquired over half a million dollars in leases and frequently resolved conflicts with upset residents.

Microsoft

Tempe, AZ

Support Technician - SMB

Feb, 2022 - Mar, 2023

- Diagnosed and resolved complex system and software issues using root cause analysis and internal research—managed high-stakes support cases, mitigating time and financial loss.
- Worked with frustrated CEOs, CFOs, and IT teams while maintaining composure and defusing conflicts.

SKILLS

Engineering Software: MATLAB, Python, Ansys Fluent (CFD), NX, SolidWorks, Fusion 360, XFOIL, Arduino, AutoCAD, Office Suite

Technical Domains: Aerodynamics, Propulsion, Fluid Mechanics, CAD, Compressible Flow, Thermodynamics

Manufacturing: CNC Router, CNC Mill, Laser Cutting

Professional Skills: Leadership, Organization, Electronic Troubleshooting, Project management, Concise Communication