LIAM NANCE

Graduate Aerospace Engineer - Propulsion, Compressible Flow & Astronautics | U.S Citizen

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EDUCATION

Arizona State University Tempe, AZ

MS - Aerospace Engineering, Astronautics **Expected Graduation May 2026**

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

BSE - Aerospace Engineering, Astronautics Graduated May 2025

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

WORK EXPERIENCE

Chas Roberts Plumbing and AC Peoria, AZ

CAD Drafter Aug, 2024 - Present

- Design detailed AutoCAD HVAC drawings containing hundreds of components per plan, while maintaining accuracy under tight deadlines. Developed expert-level attention to detail and organization.
- Review technical documents and drawings for specifications, codes, and inconsistencies.

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.

PROGRAMS AND PROJECTS

Thorough Analysis of Ramjet and Scramjet Flow - MATLAB Dec, 2025

- Developed a MATLAB tool that calculates thrust, efficiency, temperatures, pressures, and entropy changes to identify thermodynamic states and performance trends of non-isentropic ram-compression Brayton Cycle engines.
- The program can be used to test flight speed, flight altitude, internal flow speeds, maximum material temperatures, isentropic efficiencies, pressures, ISP, and TSFC to optimize the engine for its application.

Spaceworks at ASU - NASA JPL Partner Program Aug, 2024 - Aug, 2025

- Applied the NASA standard procedure and documents in a professional team setting. Also visited the JPL Campus.
- Contributed to the conceptual design and proposal for a 6U CubeSat mission (“Dusty”).
- Engineering lead and designer for the construction of an Earth Lander dropped from 100+ feet that successfully delivered a payload to the ground.

Rigorous Analysis of Liquid Rocket Engine (LRE) Dec, 2024

- Performed full analysis of fuel (LH2) and oxidizer (LO2) through every stage of the RS-25 rocket engine, used in the Space Shuttle Program and the SLS.
- Manually calculated every property of the fluids at 15+ locations in the engine to determine key engine parameters such as thrust, temperature limit, flow velocity, and engine efficiency.
- Discovered LRE performance trends, limits, and nuanced internal interactions.

Boy Scouts of America - Eagle Scout

- Over 10 years of resourcefulness, dedication, and collaboration. 500+ hours of community service.

SKILLS

Engineering Software: MATLAB, Python, NX, SolidWorks, Ansys Fluent (CFD), Fusion, XFOIL, Arduino, AutoCAD, Microsoft Office
Manufacturing: CNC Router/Mill, Laser Cutter
Technical Domains: Aerodynamics, Propulsion, Fluid Mechanics, CAD, Compressible Flow, Thermodynamics
Proficiencies: Leadership, Organization, Electronic Troubleshooting, Project management, Concise Communication
Interests: Launch Vehicles, Space Habitation, Propulsion, Rock Climbing