

DIVYA POTHULA

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EDUCATION

The University of Texas at Dallas Bachelor of Science in Mechanical Engineering May 2027

EXPERIENCE

Sierra Nevada Corp - Systems Engineering Intern; Plano, TX May 2025 - August 2025

- Designed and tested antenna housing using SolidWorks and additive manufacturing methods. Applied FEA simulations to evaluate structural performance.
- Supported payload integration efforts by troubleshooting mechanical and system-level challenges, ensuring successful assembly.
- Advanced additive manufacturing methods by modeling and refining gyroid-infill structures in SolidWorks and MATLAB, optimizing scalability and performance for various applications.

William B Hanson Center for Space Science - Space Instrument Test Intern; Richardson, TX Sept 2024 - May 2025

- Supported the development, assembly, and testing of spaceflight instrumentation for launch, ensuring reliability under simulated space conditions
- Designed and modified mechanical components in SolidWorks, contributing to the integration of test instruments with given flight hardware.
- Conducted environmental and vacuum chamber testing, analyzing results to recommend design improvements for performance in space environments.

ACADEMIC PROJECTS

TRIPOLI Level 1 Rocket Jan 2024 - May 2024

- Designed and built all structural components for a Level 1 high-powered rocket, including custom airframe, bulkheads, and avionics bay using SolidWorks and hand tools.
- Assembled and integrated a recovery system to meet L1 altitude and NAR compliance standards; successfully launched and earned L1 certification.

Vertical Axis Wind Turbine August 2023 - April 2024

- Designed and prototyped a vertical axis wind turbine for 20% increase in energy efficiency, incorporating aerodynamic modeling, material selection, and structural analysis
- Conducted wind simulations and prototype testing to refine blade size and shapes to optimize aerodynamic performance.

LEADERSHIP EXPERIENCE AND ACTIVITIES

American Institute of Aeronautics and Astronautics - Aerospace Research Corps Director May 2025 - Present

- Leads and manages multiple student-led aerospace research projects, ensuring technical progress, timelines, and collaboration for the annual AIAA Regional Student Conference.
- Manage operations across budgeting, resource planning, and marketing strategy to maintain all research projects.
- Mentor and coordinate undergraduate teams on project design reviews, technical documentation, and experimental methods.

American Institute of Aeronautics and Astronautics - High Altitude Weather Balloon Lead May 2024 - May 2025

- Led a team of undergraduate students in designing, building, and launching a high-altitude weather balloon with an altitude of 92,000 feet and collecting atmospheric data for analysis.
- Applied and developed technical skills in areas such as aerodynamics, sensor integration, mechanical design, and data analysis, ensuring successful deployment.
- Conducted research on thermal insulation methods for high-altitude environments, culminating in a publication and presentation at the AIAA Regional Student Conference.

ADDITIONAL INFORMATION

Skills: SolidWorks, Creo Parametric, AutoCad, Fusion360, Ansys, FEA, OpenRocket, QBlade, 3D Printing, C++, Python, Java