Wayne Williams

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EDUCATION

Texas A&M University, College Station, Texas

B.S. Aerospace Engineering **Diploma expected May 2026**

Cumulative GPA: 4.0

Relevant Courses: Structural Analysis, Material Mechanics, Dynamics, Thermodynamics, Theoretical Aerodynamics, High Speed Aerodynamics, Python, Linear Algebra, Differential Equations, Numerical Methods

EXPERIENCE

L3Harris Technologies

Systems Engineer Intern (Secret Clearance) **Summer 2024**

- Drafted and executed test procedures and user instruction for advanced signals intelligence (SIGINT) systems
- Used software tools to conduct scripting and RF software/hardware troubleshooting
- Created a shared information workspace for a multi-person team project aimed at sensor fusion capabilities

Los Alamos National Laboratory – Center for Integrated Nanotechnologies

Materials Science Research Intern **Summer 2021 - Summer 2023**

- Researched mechanical properties of an understudied nanomaterial using nano-microscopy
- Designed custom optical microscope components in 3D modeling software
- Developed computer applications for controlling a data acquisition device to manipulate a translating microscope stage

PROJECTS & PROFESSIONAL ORGANIZATIONS

SAE AERO Design Team

Product Owner - Structures & Materials Science Subteam **May 2023–Present**

- Aligns team and ensures product readiness by communicating vision, setting priorities, defining criteria, reviewing features, and making decisive judgments on feature readiness
- Designs and analyzes with CAD and FEA software to produce lightweight structural models for fixed wing unmanned aerial vehicles (UAV) with a specified factor of safety while maintaining an emphasis on design and manufacturing
- Engages in critical thinking and hands-on testing to create and test highly optimized aircraft structures

AGS6 - AggieSat Laboratory

Payload Sub-team Member **December 2022 – Present**

- Conducts tests for the main payload (software defined radio and dosimeter) of the satellite that AGS6 will be sending to space
- Collaborates in a systems engineering environment to design a multi-system satellite on a strict timeline

CanSat Competition

Electrical Power Subsystems Team Leader **September 2023 – June 2024**

- Leads a team in the design, development, and implementation of electrical systems, sensors, and RF communication for the international CanSat Competition, a design-build-launch competition meant to simulate the landing sequence of a planetary probe
- Collaborates with software and mechanical teams to ensure seamless integration of electrical components with overall probe design

Texas A&M Solar Car Racing Design Team

Battery Box Team Member **October 2022 – July 2023**

- Redesigned the battery box CAD model of a solar powered race car competing in the American Solar Challenge to optimize airflow and thermal status

Aggie Robotics

Mechanical Sub-team Member **October 2022 – May 2023**

- Designs the mechanical systems on a 18" x 18" x 18" robot to compete in Vex Robotics competitions

SKILLS

- 3D CAD Modeling (Solidworks)
- Finite Element Analysis (FEA, Femap & Solidworks Simulation)
- Python
- Matlab
- Radio Frequency (RF)
- PCB Design
- Systems Engineering
- Project Management