VICTORY ULASI

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PROFESSIONAL SUMMARY

Aerospace Engineering student at UT Arlington. Hands-on experience designing, building, and testing mechanical systems through self-directed projects and NASA L'SPACE MCA. Seeking an engineering internship where I can contribute and keep learning.

EDUCATION

University of Texas at Arlington 2025 **– 2028**
B.S. Aerospace Engineering | GPA: 3.92

Chennault Aviation Academy 2024 **–** 2025
Private Pilot Certificate | Single Engine Land (ASEL)

Sam Houston State University 2021 **–** 2023
Computer Science | GPA: 3.74

RELEVANT COURSEWORK

- Statics, Dynamics, Mechanics of Materials, Thermodynamics, Numerical Analysis, Engineering Design

EXPERIENCE

Mechanical Engineer – NASA L'SPACE Mission Concept Academy **Remote | Sep 2026 - Present**

- Selected for a 15-week NASA-funded program developing a preliminary mission concept following the NASA mission life cycle.
- Conducting trade studies on rover chassis, wheel, deployment system, and mini-rover configurations to evaluate design alternatives against mission constraints.
- Contributing to mechanical subsystem documentation, initial concept sketches, and the derivation of mission goals and requirements as part of a 17-person team spanning mechanical, electrical, thermal, command and data handling, planetary science, and programmatic disciplines.

Peer-Led Team Learning Leader – UT Arlington **Arlington, TX | Aug 2026 - Present**

- Facilitate weekly problem-solving sessions for undergraduate Physics 1 students, guiding groups through collaborative work on mechanics, energy, and rotational motion.
- Collaborate weekly with faculty to develop lesson plans and align session content with course objectives.

Lumber Associate – The Home Depot **Dallas, TX | Jun 2025 – Aug 2026**

- Helped customers and contractors figure out what materials they needed for a variety of jobs, measuring and cutting lumber, running basic material calculations for their jobs, and making sure they left with the right stuff.

PROJECTS

Engineering Design Final Project **SolidWorks | Microcontrollers | 3D Printing | Office Suite**

- Designed and 3D printed a fully automated Arduino-controlled mechanism in a team of 4, successfully delivering all three ping pong balls into a target cup from 6 feet away in well under the 30-second limit and earning full extra credit.
- Integrated DC motors, drive wheels, and buck converters into a self-contained battery-powered system, implementing power regulation and motor control through custom firmware.
- Produced full design documentation including GD&T drawings, a bill of materials, and thermal simulation analysis in SolidWorks.

Motor Thrust Stand **Microcontrollers | C/C++ | MATLAB | SolidWorks**

- Designed and fabricated a motor thrust stand using a 10 kg load cell, HX711 amplifier, and NUCLEO-F446RE, logging real-time force and current data via MATLAB.
- Applied the stand to characterize motor and propeller performance for drone diagnostics and performance validation.

Beam Solver **MATLAB | Engineering Statics**

- Developed a MATLAB solver for statically determinate pin-roller beams, computing support reactions via matrix equilibrium equations and generating shear force and bending moment diagrams.

TECHNICAL SKILLS

CAD & Analysis: SolidWorks, Siemens NX, SolidWorks Simulation, GD&T, OpenRocket
Programming: MATLAB, C/C++, Git/Version Control
Fabrication & Hardware: 3D Printing, Soldering, Electronics Troubleshooting, Microcontrollers
Other: Microsoft Office Suite, Data Acquisition, Technical Documentation, Trade Studies