Shreyas Subramanian

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EDUCATION

Georgia Institute of Technology, *Daniel Guggenheim School of Aerospace* — Atlanta, Georgia
- BS in Aerospace Engineering (First Year, Sophomore Academic Standing) — Expected May 2026
- GPA: 4.00/4.00
- *Relevant Activities:* GT Experimental Rocketry, Sigma Gamma Tau, GT School of Aerospace Student Advisory Council, GT AIAA, Yellow Jacket Flying Club, RotorJackets, GT India Club

Bellevue College — Bellevue, Washington
- GPA: 3.93/4.00 — September 2019 - June 2023
- 61 Credit Hours (Dual Enrollment)

Newport High School — Bellevue, Washington
- GPA: 4.00/4.00 — September 2019 - June 2023

WORK EXPERIENCE

Research Assistant, *Ben T. Zinn Combustion Laboratory,* Atlanta, Georgia (8 hours/week) — January 2024 - Present

Working under Dr. Tim Lieuwen researching mitigating ammonia NOx emissions using two-stage rich-quench-lean (RQL) combustors.
- Designing and frabricating an ammonia fuel supply system for high-pressure testing utilizing SolidWorks, SolidWorks Simulation (for FEA analysis), and proficient welding and manufacturing techniques.
- Assisting in developing high-pressure testing rig, including the integration of building utilities, precision swaging of various fuel lines, and ensured seamless connection from the control room to the testing apparatus.
- Enabling rapid transition from atmospheric testing to high pressure testing.

Engineering Intern, *Textron Aviation,* Wichita, Kansas (8 weeks, 20 hours/week) — June 2022 - July 2022

Textron Aviation is one of the largest general aviation manufacturers in the world, producing business jets, as well as turboprop and piston engine aircraft.
- Worked on full-scale static flight simulators in the systems test department; developed and maintained them for a variety of internal tests (e.g., human factors testing, emergency procedures development, firmware build testing).
- Calibrated wraparound visual systems using FlyElise to create cohesive, 180-degree images across multiple projections.
- Integrated open-source software (FlightGear APIs) with project-specific hardware (Arduino microcontrollers).
- Modeled and 3D printed microcontroller mounts.
- Scaled testing capacity and increased simulator uptime.

Range Engineering Intern, *Pendleton Unmanned Aircraft System Range,* Pendleton, Oregon (8 weeks, 40 hours/week) — June 2021 - August 2021

Pendleton UAS Range is one of the premier UAS testing and rapid prototyping centers, helping its customers ensure FAA and airspace compliance.
- Shadowed test UAS performance operations conducted by Airbus, Prime Air, Rain Aero, and Insitu.
- Supported client missions by designing and setting up hardware (PCBs, flight controllers, batteries, etc.).
- Mapped visual flight aids using test materials and creating checkpoints for UAS.
- Developed a hinged battery cover for a client using SolidWorks and 3D printers.
- Increased overall customer testing throughput.

ADDITIONAL EXPERIENCE

Georgia Tech Experimental Rocketry, *Avionics and Externals Team Member,* Atlanta, Georgia — August 2023 – Present

Georgia Tech Experimental Rocketry aims to be the first collegiate team to launch a two-stage rocket to the edge of space.
- Used Python to create a data filtering module which reads raw serial data from onboard systems, cleans and uploads data to a SQL server database.
- Used Grafana to visualize data from SQL server and embedded the associated visual components into a GUI mission control application using PyQT.

Newport Rocketry Club, *Member,* Bellevue, Washington — June 2020 – July 2023

Newport Rocketry Club is my high school's competitive rocketry team competing in the American Rocketry Challenge.
- Designed rocket in accordance with competition requirements using simulation software (OpenRocket).
- CAD modeled (SolidWorks) and 3D printed various components of the rocket (nose cone, fins).
- Used linear regressions as well as statistical analysis to rapidly prototype our design and accurately mass our rocket for launch.

HONORS AND AWARDS

The American Rocketry Challenge, *First Place,* Chantilly, Virginia — May 2022
- The American Rocketry Challenge is the world's largest rocket contest with nearly 5,000 students nationwide competing each year.
- The contest gives middle and high school students the opportunity to design, build and launch model rockets.
- My team won the competition, representing Newport Rocketry Club, finished first among 723 other teams across the United States.

International Rocketry Challenge, *Second Place,* London, United Kingdom — May 2022
- The International Rocketry Challenge (IRC) is the final competition between the best and biggest student rocketry competitions across the globe; it was formalized in 2015 and the current participating countries are France, United Kingdom, United States, and Japan with new countries applying to join each year.
- My team represented United States at the Farnborough International Air Show and placed second internationally.

SKILLS

Hardware: Shop-trained
Programming: Java, Python
Software: SolidWorks, MATLAB, Premiere Pro, Office 365
Licenses: FAA Part 107
Language: Native Fluency in English, Bilingual Fluency in Tamil, Limited Working Proficiency in Spanish