

# Sreeauditya Motukuri

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## Education

**Virginia Tech, Blacksburg, VA** - B.S. Robotics and Mechatronics Engineering (2023 - 2026) - GPA 3.68

**George Mason University, Fairfax, VA** - B.S. Mechanical Engineering (2022 - 2023) - GPA 4.0

## Skills

CAD: SolidWorks (CSWE), Fusion 360, AutoDesk Inventor

Fabrication: 3D Printing, Laser Cutting, Workshop Power Tools

Programming Languages: MATLAB, Simulink, Python, C++

## Work Experience

### Raytheon - Systems Engineering Intern

(June 2025 - August 2025)

Supported Internal Research and Development projects as a Systems Engineer

- Worked on developing a Critical Infrastructure-Defense Simulation in AFSIM to assess Counter-Unmanned Aircraft Systems
- Created a higher fidelity SITL ground steering model in Simulink for use in ArduPilot to enable more efficient testing procedures
- Assisted in designing a geo-targeted notification system for a crowdsourced drone tracking app

### Altec - Controls Engineering Co-Op

(May 2024 - December 2024)

Supported Controls Engineers in designing control systems for Altec trucks and services

- Coded a script in MATLAB to gather all CAN messages in a Simulink model to automate documentation
- Assisted in model development and testing to estimate boom position from hydraulic commands
- Designed, implemented, and validated a control system, specified required electronics, and delivered a fully functional RC Mini Crane Arm for product demonstrations
- Created a Crane Mainframe Assembly Testing Module to automate testing documentation

### VT National Security Institute - Undergraduate Research Assistant

(September 2023 - May 2024)

Researched, Designed, Developed, and Tested hardware for the Raytheon Autonomous Vehicle Competition

- Worked within a team of 7 to design a UAV and UGV to accomplish autonomous navigation missions
- Led autonomous ground vehicle development - 2nd in the East Region Competition
- Developed electronics mounts for a UAV and UGV to safely house electronics during operation

### GMU Autonomous Blimp Lab - Undergraduate Research Assistant

(October 2022 - June 2023)

Researched/Developed Autonomous Blimps for the Defend the Republic (DTR) Competition

- Overhauled blimp design via experimental analysis to decrease weight and increase cargo storage by 2x
- Implemented a PD control algorithm to autonomously navigate blimps toward detected balloons
- Led a weight reduction effort which led to a 5x weight reduction of critical servo mounts

## Club Experience

### Society of Automotive Engineers at VT - President

(April 2024 - Present)

- Managed tours and networking events with 15+ attendees throughout the year
- Managed club finances and budget (formerly Treasurer)

### AutoNav at VT CRO - Mechanical Team Lead

(March 2025 - Present)

- Managed a team of 5 Mechanical Engineering Majors to design hardware for an AGV to compete in IGVC
- Designed a mount for a LIDAR and Camera to maximize their line of sight and minimize vibration

### Formula SAE - Suspension/Chassis Team

(September 2022 - December 2024)

- Researched suspension geometry, focusing on the benefits of a wider car
- Prototyped a race seat in SolidWorks to fit in our chassis and meet regulatory standards
- Documented and assisted in chassis fabrication to streamline manufacturing

### GMU HyperNova Solar - Chassis Team

(September 2022 - May 2023)

- Designed a fan mount and ducting in SolidWorks to cool the hot end of a custom 3D belt printer
- Designed and stress-tested a steel tube frame chassis utilizing SolidWorks