

# ANDERSON GARNER

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## SUMMARY

Aerospace Engineering student at the University of Virginia. Lead designer of airbrake systems for UVA Rocketry, managing a 29-member team and using CAD, FEA, and CFD to develop, simulate, and test deployable aerodynamic systems. CSWA-certified and student pilot with experience in CAD modeling and project planning.

## EDUCATION

**University of Virginia School of Engineering**, Charlottesville, VA

Expected Graduation 2027

- *BE Aerospace, Aeronautical and Astronautical Engineering*

## TECHNICAL SKILLS

- Design and Simulation: SolidWorks, AutoCAD, ANSYS Mechanical (FEA), ANSYS Fluent (CFD)
- Manufacturing: CNC Metal Fabrication, Waterjet, Lathe, 4-Axis Mill, 3D Printing
- Project and Team Skills: Project Management, Leadership, Technical Documentation
- Computer Languages: Python, C++, Java, VB.net

## PROJECTS & LEADERSHIP EXPERIENCE

**UVA Rocketry, Airbrakes Sub-team Lead**

8/24-Present

- Lead the design, fabrication, and testing of active aerodynamic airbrakes, optimizing weight, reliability, and flight performance.
- Manage a 29-member cross-disciplinary student team, coordinating mechanical, electrical, and software efforts to deliver solutions on time and on budget.
- Apply CAD, FEA, and CFD tools to develop, simulate, and validate deployable aerodynamic systems.
- Direct airbrake system development, driving team success at IREC 2025: 1<sup>st</sup> Place in 10k COTS and Overall Runner-Up.

**Improving Local School Traffic, Class Project, Engineering Foundations II**

1/24-5/24

- Collaborated with Saint Anne's-Belfield staff and parents to develop a carpool system aimed at alleviating congestion during student pickup and drop-off.
- Designed and prototyped a Visual Basic application to simulate integrating a carpool raffle system into the school's Veracross student information platform.
- Developed a Python script to visualize nearby participating parents on an interactive map, improving carpool coordination.

## WORK EXPERIENCE

**Garner Complete Site Inc., CAD Technician**, Winter Haven, FL

5/19-8/23

- Perform material takeoffs and quantity estimates to support project planning and cost analysis.
- Create CAD models of job sites to integrate with GPS-enabled construction machinery for automated grading and excavation.

## CERTIFICATIONS

**SolidWorks CSWA**, Dassault Systemes

5/19

**Student Pilot Certificate**, Federal Aviation Administration

9/22