

# Collin Quirke

Winchester, VA | (540) 877-5366 | [cjquirke@liberty.edu](mailto:cjquirke@liberty.edu) | [cquirke.github.io](http://cquirke.github.io) | [LinkedIn.com/in/quirke-collin](https://LinkedIn.com/in/quirke-collin)

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## OBJECTIVE

Mechanical Engineering student driven by transformative innovation. Experienced in propulsion design, simulation tools (MATLAB, SolidWorks, OpenMotor, RocketPropulsionAnalysis), proposals, research, systems engineering, project development, manufacturing, and technical documentation. As senior engineer on Liberty University's Rocketry Team, I've led system-level integration and performance validation, fostering a culture of collaboration, mentorship, and rigorous engineering. I seek to immerse myself in a team where bold ideas meet real-world execution, where I can grow as an engineer, and contribute meaningfully to cutting-edge systems.

## EDUCATION

**Bachelor of Science in Mechanical Engineering**, Liberty University, Lynchburg, VA

May 2028

- GPA: 3.5/4.0

## TECHNICAL SKILLS

**Software:** Microsoft Office (Word, Excel, PowerPoint), SolidWorks, ACAD, Inventor, OpenMotor, RPA, ANSYS

**Languages:** MATLAB, CSS, HTML

**Operating Systems:** Microsoft Windows

**Machinery:** Laser & 3D printing, Drill Press, Lathe, CNC, Hand tools

## CERTIFICATIONS

SolidWorks

Anticipated Mar 2026

Tripoli L2

Anticipated Mar 2026

OnShape

May 2025

## RELEVANT EXPERIENCE

**Senior Casing Engineer**, Liberty University Rocketry Team, Lynchburg, VA

September 2024-Current

- Collaborated on the Propulsion Sub-team to design custom motors, manufacture Solid Rocket Motors, present proposals, construct certification rockets, and develop technical documentation.
- Led design and fabrication of a boat tail and contributed to extensive research and testing.
- Gained proficiency in MATLAB, SolidWorks, OpenMotor, RPA; currently developing skills in ANSYS.
- Strengthened skills in teamwork, critical thinking, and professional communication.

**Counselor**, DeerFoot, Silva, NC

May 2025-August 2025

- Supervised and mentored 10 campers aged 9–17 for 4, two-week sessions.
- Completed intensive training in mental well-being, lifeguarding, CPR, Wilderness First Aid, and counseling professionalism.
- Developed leadership, reliability, and responsibility in high-stakes environments.

**Intern**, NASA, VASTS Program, Remote

November 2023-April 2024

- Participated in a 16-week engineering internship focused on space travel and colonization research.
- Produced 6 technical reports, 2 technical drawings, and performed calculations related to deorbit and payload weights.
- Collaborated with fellow interns to develop engineering solutions and refine technical writing skills.

**Team Lead**, Chick Fil A, Winchester, VA

March 2022-November 2023

- Promoted to leadership role due to strong performance and versatility across responsibilities.
- Recognized for excellence in teamwork, communication, leadership, and professionalism by peers and customers.

## COMMUNITY SERVICE

**Volunteer**, Liberty University, Lynchburg, VA

August 2024-Current

- Completed 80+ hours of service through church outreach, food pantries, and community evangelism club.

**Missions Trip**, Praying Pelican, Wilmington, NC

July 2024

- Served at a food bank, performed construction and lawn care, and ministered to the homeless through prayer and outreach.