

# LAKE LARSON

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## Education

### The University of Alabama

B.S. Aerospace Engineering, GPA 3.63/4.00, Sigma Gamma Tau Honor Society, Honors College

Expected May 2027

Tuscaloosa, AL

## Work Experience

### Thermo Structural Systems CO-OP, Kratos Defense & Security Solutions

May 2024 – Present

Thermo Structural Systems CO-OP

Birmingham, AL

- Designed, conducted, monitored, and troubleshoot material properties tests to meet customers' required data points.
- Assisted in pioneering the study of crack propagation at Kratos by designing test fixtures, problem-solving unwanted results, and creating a calculator for interpreting results.
- Interacted with representatives from top defense industry companies to ensure accurate on-time delivery of high-quality test results.
- Drafted technical drawings that accommodated the customer's desired test samples within the provided material for the internal machine shop to fabricate.

### University of Alabama Housing and Residential Communities

August 2023 – Present

Residential Advisor

Tuscaloosa, AL

- Serve as a residential advisor to 40 freshmen, providing leadership and support to ensure academic success and personal growth.
- Planned and ran six community-building events to promote student engagement and a sense of community.

## Project Experience

### Formula SAE – Crimson Racing

June 2024 – Present

Aerodynamics Assistant Lead and Rear Wing senior engineer

Tuscaloosa, AL

- Increased rear wing efficiency by 11% and reduced weight by 1.5 lbs through design improvements.
- Communicated with lead engineers to ensure integration of vehicle components while achieving performance goals.
- Led a team of three junior engineers, delegating tasks and mentoring them for future leadership roles.
- Utilized CFD and SolidWorks for iterative design, employing simulation results to determine where to trim the end plate in order to reduce pressure gradients and decrease vortex magnitude.

### Boy Scouts of America – Troop 81

June 2020 – May 2022

Project lead, Senior Patrol Leader, Treasurer

Maryville, TN

- Led the Troop through over 20 campouts and over a hundred meetings.
- Planned, got materials donated and led the troop through an Eagle Scout project, a flag deposit box that has over 30 flags a month deposited by the community.

## Skills

**Engineering and Design:** SolidWorks, CFD (Ansys Fluent), FEA (SolidWorks and Abaqus), technical drawing, rapid prototyping, iterative design, test & evaluation, troubleshooting

**Manufacturing:** 3D printing, composites manufacturing, aluminum fabrication, additive manufacturing

**Programming:** Python, MATLAB, LaTeX, HTML

**Other:** Microsoft Office Suite, Paraview, project leadership, continuous improvement