

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