

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

May 2027

Tuscaloosa, AL

Relevant Experience

Kratos Defense & Security Solutions

Thermo Structural Systems CO-OP

May 2024 – Present

Birmingham, AL

- Design, conduct, monitor, and troubleshoot hundreds of material property tests to meet customers' data requirements, ensuring precise results that meet high industry standards and align with client expectations
- Collaborated on pioneering crack propagation studies at Kratos by designing specialized test fixtures and developing a data interpreter, providing engineers with accurate results and tools to improve future tests
- Communicate with representatives from top defense industry companies to ensure accurate on-time delivery of high-quality test results
- Draft technical drawings that accommodated the customer's desired test samples within the provided materials, enabling efficient fabrication by the internal machine shop, ensuring on-time and project completion

Formula SAE – Crimson Racing

Aerodynamics Assistant Lead and Rear Wing senior engineer

August 2022 – Present

Tuscaloosa, AL

- Designed rear wing utilizing CFD and SolidWorks to do iterative design to reduce pressure gradients and decrease vortex magnitude, resulting in an 11% increase in efficiency and a 1.5 lbs reduction in weight
- Communicated with lead engineers to ensure seamless integration of rear wing with other vehicle components while meeting set performance goals
- Mentor a team of two junior engineers, delegating tasks while promoting skill development, preparing them to design next year's car

Additional Experience

University of Alabama Housing and Residential Communities

Residential Advisor

August 2023 – Present

Tuscaloosa, AL

- Serve as a residential advisor to 40 freshmen each year, providing leadership and support to foster an environment for academic success and personal growth
- Plan and ran six community-building events to promote student engagement and a sense of community

Boy Scouts of America – Troop 81

Project lead, Senior Patrol Leader, Treasurer

June 2020 – May 2022

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, OnShape, Fusion 360, Rhino3D, AutoCAD, Inventor, 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