

PEYTON PATTERSON

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OBJECTIVE

Mechanical and Aerospace Engineering graduate with hands-on project experience looking to leverage a strong academic foundation, practical problem-solving skills, and a passion for innovation into contributing to an entry-level engineering position.

EDUCATION

B.S. Mechanical and Aerospace Engineering

Oklahoma State University | May 2024

Graduated *summa cum laude*. Theoretical and technical coursework from material science, thermodynamics, fluid dynamics, and aircraft design. Capstone project included designing and manufacturing a fully functional loitering aircraft which was showcased at Speedfest.

EXPERIENCE

Crescendo Engineer

Speedfest Black | December 2023 – May 2024

- Developed a small, loitering aircraft which was purchased through contract by the DoD.
- Utilized CFD simulations in SOLIDWORKS to optimize the aircraft's aerodynamic profile and stability alongside theory for maximum mission performance.
- Conducted research on Radar Cross Section (RCS) to produce an undetected aircraft.
- Bettered hands-on skills and aircraft quality with wet carbon fiber layups; streamlining the process to save time and money.

Engineering Laboratory Technician

OAI/RE | May 2023 – January 2024

- Partnered closely with leads to manage R&D processes, data collection and testing.
- Became a Certified Remote Pilot to support real-time data acquisition with UAVs.
- Maintained equipment and ensured accuracy of test results, directly contributing to successful project milestones.

Undergraduate Research Assistant

CoRAL | November 2022 – August 2023

- Designed drone simulation software using a combination of Python and C++ to enhance "Human-in-the-loop" autonomous flight.
- Collaborated in the GitHub virtual environment enhancing my software skills.

Aerodynamics Engineer

Formula SAE | January 2022 – March 2023

- Modeled and performed simulations in SOLIDWORKS on the aerodynamic components of the car build to validate and qualify their molds to be machined.
- Applied manufacturing skills through carbon fiber layups and small area welding.

Club Member

Cowboy Rocketworks | January 2022 – May 2023

- Designed and simulated competition rocket build using OpenRocket.
- Reduced costs for the program through the setup of the X-Winder machine enabling manufacturing of custom-wound rocket body tubes.

CREDENTIALS

- (E.I.T) Fundamentals of Engineering exam (2379138-1758150-ffccbce)
- Certified SOLIDWORKS Associate (C-YJLFC7Q45G)
- Remote Pilot Certification (4854815)

LEADERSHIP

Leadership and Honors

- CEAT Scholar – One of 80 CEAT students selected.
- Tau Beta Pi – Top 20% of all Oklahoma State Engineers
- Sigma Gamma Tau – Top 25% of Oklahoma State Aerospace Engineers
- Pi Tau Sigma – Top 25% of Oklahoma State Mechanical Engineers
- American Institute of Aeronautics and Astronautics