

ENGINEERING EXPERIENCE

Mechanical Design Intern

AET Image Engineering — Design Team

June 2024—August 2025

Baltimore, MD

- Led design of a large-scale audiovisual mounting system for an NFL locker room; transformed client sketches into manufacturable CAD models, researched and sourced materials, and directed fabrication and installation.
- Designed a production-ready hanging stage laser bracket system for a Las Vegas resort, supporting multiple laser platforms. Researched materials and used FEA to optimize strength, durability, safety, and cost.
- Designed a mounting solution for a Broadway actor-rigged fog system; developed CAD models, iterated, and produced a 3D printed compact solution, enabling fast, tool-free component swaps in low-light conditions.
- Built and implemented an Arduino-based thermal monitoring and safety shutoff system for a rooftop air compressor test environment with automatic data logging for review; directed peers on wiring and testing.
- Produced professional engineering drawings and fabrication documentation for new and existing products, providing accurate, clear, and manufacturing-ready packages that streamlined production.

ASPIRE Intern

Johns Hopkins University Applied Physics Laboratory

June 2021—August 2021

Laurel, MD

- Learning-focused design internship in the Research and Exploratory Development Department.
- Designed conceptual planetary rover locomotion systems as part of an interdisciplinary team under senior researchers, developing CAD models to address terrain challenges including rocks, crevices, and slopes.
- Modified and optimized models by comparing real rover prototypes to identify areas of improvement.

EDUCATION

Colorado State University – 3.1 GPA

B.S. in Mechanical Engineering

Expected Graduation: May 2026

Fort Collins, CO

Relevant Coursework: Engineering Design I, II, III: FEA, Mechatronics and Measurement Systems, Manufacturing Processes, Machine Design, Dynamics of Machines, Advanced/Additive Manufacturing, Fluid Mechanics, Intro to Electrical Engineering, Engineering Materials, Dynamics, Solids, Heat and Mass Transfer, Differential Equations

ADDITIONAL EXPERIENCE

STEM Academy

Johns Hopkins University Applied Physics Laboratory

- Completed project-based circuits labs, gaining experience with applicable analog and digital circuit design.
- Developed proficiency in SOLIDWORKS through applied design projects while preparing for certifications.
- Learned Python programming for scientific applications including data analysis and device communication.

Operations Associate

Columbia SportsPark

- Coordinated logistics of corporate and private events with 100+ guests, ensuring smooth operation.
- Resolved mechanical issues with batting cages, pond systems, and landscaping tools.

Senior Patrol Leader

Eagle Scouts Cycling Across America

- Joined a group of Eagle Scouts on a bicycle trip from Seattle, Washington to Washington DC.
- Oversaw camp logistics and budgeting, route selection, and safety while developing group teamwork, problem-solving, and leadership skills under challenging and unpredictable conditions.

SKILLS

Certifications: SOLIDWORKS Associate, HAAS CNC Basic Mill Operator

CAD: SOLIDWORKS, Creo, Fusion360 Manufacture, AutoCAD, Autodesk Inventor

Programming: MATLAB, LabVIEW, Arduino, Python, Java, Raspberry Pi, JavaScript, Excel

Machining/Practical: HAAS CNC, Vertical Milling Machine, Lathe, Soldering, Basic Welding

Simulation/FEA: SOLIDWORKS Simulation, Abaqus