Jasper Anderson

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EDUCATION

Olin College of Engineering, Needham, MA, Bachelor of Science, Mechanical Engineering, May 2028

Relevant Coursework: Modeling & Simulation, Mechanics of Solids and Structures, Principles of Integrated Engineering,
Software Design, Intro to Thermal-Fluids, Differential Equations, Mechanical Prototyping.

Wyoming High School, Wyoming, OH, May 2024, GPA: 4.749

SKILLS

- Design Tools: Certified SolidWorks Associate (CSWA), OnShape, Autodesk Suite, Adobe Creative Suite.
- **Programming:** MATLAB, Python, Java, C++, JetBrains IDEs & Visual Studio.
- Personal: Problem Solving, Lateral/Critical Thinking, Team Communication, Self Education, Detail-Oriented Design.

EXPERIENCE

Philmont Scout Ranch, Cimmaron, NM

OA Trail Crew Foreman (Summer 2025)

- Led teams of 16–20-year-olds on two-week expeditions, spending one week building trail at a backcountry spike site, and one week on a strenuous backpacking trek in the Sangre de Cristo Mountains.
- Managed team dynamics, educated participants on outdoor and trail-building skills, responded to emergency situations. Olin Baja, *Olin College, MA*

Lead Engineer of Front Suspension (September 2024 - Present)

- Performed extensive failure analysis and post-competition testing on the previous year's car, discovering failure points in the front suspension, steering system, and continuously variable transmission.
- Designed and manufactured the next-generation front steering knuckle based on analysis from previous years and simulation in MATLAB and SolidWorks, emphasizing a lightweight form, optimizing steering parameters, and creating a more design-for-manufacture structure to ensure simple fabrication.

Wyoming Science and Technology Camp, Wyoming City Schools, OH

Drone Technology Teacher (Summer 2022 - 2024)

- Served as the youngest teacher on staff, maintained a fleet of software-controlled drones for classroom use.
- Designed custom curricula to educate 1st-8th graders on basic programming skills, control systems, and drone technology.
- Effectively educated students and organized a shifting team of counselors to delegate teaching and troubleshooting.

PROJECTS

Electric Lawn-Mower Conversion

- Retrofitted a gas-riding lawnmower to use a salvaged electric drivetrain from a forklift through a hydrostatic transmission.
- Reverse-engineered outdated MOS90 MOSFET controllers, rebuilt a 4-pole forklift drive motor and contactors, fabricated a mounting adapter assembly in Fusion 360 and with MIG welding, and designed testing and final control interfaces.

1982 Toyota Land Cruiser

- Restored and entirely rebuilt brake, engine, and suspension systems to custom specifications.
- Designed a custom belt-tensioning alternator bracket using SolidWorks and fabricated it using a waterjet.
- Modeled and fabricated custom interior pieces, including speaker brackets, door cards, and cargo panels.

AWARDS

BSA Eagle Scout 2023 – Effectively led a troop of 120 youth for 1 year as Senior Patrol Leader, created an efficient tripplanning form structure for youth, organized and led a 200+ man-hour service project for a local youth shelter **Venturing Leadership Award** 2023 - Selected for leadership in improving communication and public resources through the construction of a council website, online communication platform, and a bi-weekly council communication newsletter.