Thomas Anderson

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Engineering student with experience in mechanical design, mechatronics, and data-driven problem-solving. Focused on controls, GNC, and automation with a strong interest in defense applications. Eager to contribute to mission-critical technologies and learn from industry professionals.

EDUCATION

Bachelor of Science in Mechanical Engineering May '26

Utah Tech University | St. George, Utah

- INSPIRE Scholar: Funded by the National Science Foundation
- Relevant Coursework: Autonomous Vehicles, Controls, Fluid Mechanics, Macherinery, Thermodynamics, Prototyping

PROFESSIONAL EXPERIENCE

Mechanical Engineering Intern May '23 - Jan '25

Wilson Connectivity | St. George, Utah

- Used SolidWorks to innovate and implement design concepts that significantly enhanced the durability of antenna mounts in consumer electronics projects
- Improved testing by designing fixtures for PCB boards and signal boosters, boosting efficiency, workflows, and accuracy
- Utilized a variety of prototyping tools including 3D printing, CNC machining, drill press, and band saw during the creation of new test fixtures

Materials Intern May '22 - Aug '22

RAM Aviation Space and Defense | St. George, Utah

- Collaborated with manufacturing engineers to conduct cost analysis and actively contributed to cost reduction initiatives
- Interfaced closely with manufacturing engineers and planners to optimize the pneumatics assembly area, leading to a significant efficiency improvement
- Assembled an average of 10 kits daily, each comprising varying quantities of parts ranging from tens to thousands, demonstrating efficiency and adaptability in production processes

PROJECTS

Autonomous UAV Control and Path Planning

- Implemented and optimized an RRT algorithm for autonomous UAV navigation; improved path efficiency via dynamic tree restructuring and neighbor-based optimization. Built and tested a full autopilot stack including modeling, control, estimation, guidance, and navigation using MATLAB in simulation and live multi-rotor flight tests

Turbo Regatta

- Designed and built an electric propulsion system for pedal boats with cross-disciplinary team; led waterproof (IP28-rated) mechanical UI/UX design and integrated ergonomic controls with digital interfaces; competed successfully in Engineering Design Day race and maneuverability challenges

Steel Bridge Design

- Designed and fabricated a steel bridge to hold 1,000 lbs using SolidWorks and FEA analysis, with a welded frame and supports under shear; ensured stress remained under 30% of yield

VOLUNTEER EXPERIENCE

Eagle Scout

- Completed highest level of achievement in Scouting with two palms
- Implemented educational workshops to boost awareness of organ donation in the local community, tracking impact through event attendee numbers

SKILLS

Design Software: SolidWorks, OnShape, Fusion 360, ANSYS
Fabrication: Laser Cutting, 3D Printing, CNC Machining/Operations, Manual Mill, Manual Lathe, Soldering, Welding
Programming: MATLAB, Arduino