Robert Thibodeau

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EDUCATION Embry-Riddle Aeronautical University

Bachelor of Science, Aerospace Engineering

Area of Concentration: Astronautics

Daytona Beach, FL

May 2026 GPA 3.6/4.0

PROJECT EXPERIENCE

Aerospace Engineering Project – Multistage Model Rocket: Member of 2-person team Constructed a multistage rocket capable of reaching an altitude of 2500 feet. Designed rocket from scratch in Autodesk Fusion 360, and 3D printed it. Used OpenRocket software to simulate test launches.

MATLAB Final Project - Basketball League Database: Individual Project

Developed a user-friendly basketball league database in MATLAB allowing users to customize teams and players. Implemented automatic stat tracking and updates within the database, streamlining data management for improved efficiency. Users able to automatically create charts and graphs based on certain data they wanted to compare.

Principles of Engineering Final Project – **3D Scanning Robot:** Member of 3-Person team Designed and assembled a robot capable of fully automatically scanning a 6' by 6' area and creating a 3D map of the scanned area using over 10,000 data points. Used the engineering process to redesign and improve the robot multiple times. Used C++ and 3D graphing software to run the robot.

FTC Robotics 2022 Robot – Freight Frenzy Challenge: Leader of 16-person team

Worked in a 2-person team to fully design the robot in Fusion 360. Led the business team to secure 7 new sponsors raising \$2000 in the process. Mentored an international team in Libya, helping them with project development, design, and team communication. Placed 18th in the state of Iowa out of 162 teams. Led FMEAs to increase reliability and modularity.

Astronomy Research – Dobsonian Telescope: Leader of 5-person team

Developing a modular 8" refracting Dobsonian telescope in Fusion 360 to 3D print and use for research. Leading and teaching a team of members new to CAD and 3D printing. Collaborating using Fusion 360 cloud file sharing.

WORK EXPERIENCE

Contractor, PNW Home Improvement

Portland, OR Summer 2023

- Worked with a team of contractors to build and repair fences
- Landscaped following a plan and guidelines laid out by the homeowner
- Operated small machines to dig trenches and post holes
- Installed and constructed small irrigation pipelines
- Created personalized fence door designs with a CNC router

SKILLS Engineering Software:

Systems Tool Kit, CATIA, MATLAB, Autodesk Fusion 360,

Autodesk Inventor, Cura

Technical:

Drafting, 3-D printing, Power Tool Operation

INVOLVEMENT Member, Amateur Astronomy Club – Leader, Telescope Design Team Member, AIAA Fall 2022-Present Fall 2022-Present Fall 2020-Spring 2022
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AWARDS ERAU Presidential Scholarship Fall 2022-Present

Systems Tool Kit Level 1 Certification Fall 2021
Howard Vernon Leadership Award Fall 2021
National Merit Scholar Letter of Commendation Fall 2021