

Nathan Houck

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U.S. Citizen

EDUCATION	Embry-Riddle Aeronautical University Bachelor of Science, Aerospace Engineering Area of Concentration: Astronautics Dean's List, Fall 2023, Spring 2024 Honor Roll, Fall 2024	Daytona Beach, FL May 2027 GPA: 3.76/4.0
PROJECT EXPERIENCE	Autonomous Maritime Robotics Association - Robosub: Heat Transfer Team Lead <ul style="list-style-type: none">Implementing a solution for electronics cooling within the submarine to reduce internal temperature by over 60°F.Investigating heat pipes and thermoelectric cooling. Mechanical Engineering Team <ul style="list-style-type: none">Worked with a team of 4 to design, prototype, and manufacture an improved thruster mount.Reduced lateral movement to increase reliability and lifespan.Designed and modeled a torpedo launching system that launches the torpedoes when the proper target is identified.Prototyped a bin that will release weighted bags over a designated drop zone, utilizing torsion springs and servo motors.<ul style="list-style-type: none">Created a waterproof servo housing for a DS3225 servo motor utilizing O-Rings and a dynamic shaft seal. CATIA Project: Member of a team of 4 <ul style="list-style-type: none">Created a model of a Swiss Army Knife by taking measurements in real life.Utilized many modeling functions in CATIA including generative design tools and assembly. MATLAB Project - Simulation: Individual Assignment <ul style="list-style-type: none">Developed a program in MATLAB simulating a civilization based on customizable parameters.Utilized class structures, reading, and writing data from Excel files, genetic algorithms, and plotting data. Java Project – 3D Raycaster: Individual Assignment <ul style="list-style-type: none">Developed a 3D Raycasting engine in Java utilizing the AWT and Swing frameworks.Heavy use of trigonometric functions, hash maps, and classes.Implemented a recursive-backtracking maze generator to randomly generate a level each time the program runs.	August 2024-Present
LEADERSHIP/ INVOLVEMENT	Member, Autonomous Maritime Robotics Association, Fall 2024 – Present <u>Flight Student</u> , Summer 2024-Present <ul style="list-style-type: none">Risk management and avoidanceEffective communication and situational awarenessProblem solving and remaining calm under pressure Member, National German Honor Society, Fall 2022-Spring 2023 Volunteer, Event Supervisor, Science Olympiad Regionals, Fall 2019 – Present	
SKILLS	<i>Engineering Software:</i> CATIA v.5, Autodesk Fusion, MatLab, Python, Java, C/C++ (Basic) <i>Office Software:</i> Microsoft Word, Excel, PowerPoint, Publisher, Teams <i>Technical:</i> Drafting, 3-D printing <i>Languages:</i> English (fluent), German (basic) <i>Certifications:</i> Open Water Scuba Diver (Nitrox Certified), AED/CPR Certified, First Aid Certified <i>Hobbies and Interests:</i> Aviation, Guitar, Alto Saxophone, Scuba Diving, Fossils	
WORK EXPERIENCE	Customer Service Associate , Wawa Inc. <ul style="list-style-type: none">Wawa, Inc. Customer Service Award – Day Brightener, April 2023Worked in fast-paced environment on a strict schedule to serve over 500 people in one shiftHandled day-to-day operations of the store, including the sales floor, deli area, and the cash registerTrained new sales associates on customer service skills and company policies	Glen Mills, PA Jul. 2022 – Aug. 2023