Ryan W. Hodge

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Education:
Temple University, College of Engineering, Philadelphia, PA
Bachelor of Science, Dual Major: Electrical Engineering & Computer Science
GPA: 4.00, **Honors College**, Dean's List: Fall 2019 – February 2022 Expected Graduation: May 2023

Technical Skills: Python, GIT, JavaScript, Java, HTML, C/C++ Programming, Test Driven Development, PostgreSQL, SystemVerilog, XML, Assembly Language, MATLAB, AutoCAD, SolidWorks, Visual Studio, Cybersecurity, Woodworking, Circuitry, Piano

Relevant Coursework: Operating Systems, Data Structures and Algorithms, Embedded Systems, Low-Level Programming, Processor Systems, Digital Circuit Design, Signal Processing

Technical Experience:
Lockheed Martin, King of Prussia, PA May 2021 – August 2021
Software Engineering and Web Development
- Engineered and developed the user interface (UI) and features of a web app with a team
- Utilized test-driven development for debugging to confirm the program worked correctly
- Debugged and programmed front-end JavaScript and HTML and back-end Java to enhance UI design and to create tables for organizing data
- Implementation and creation of web sockets so the UI can communicate with the server
- Earned team of the release while working at this location

Temple Undergrad Research, Philadelphia, PA November 2020 – October 2021
Simulating and Creating Autonomous Underwater Drones
- Created and coordinated an autonomous drone, boat, and underwater vessel with a team
- Programmed in C++, Python, and XML to create executable files and 3D models for simulation
- Utilized TensorFlow and Keras for image recognition and detection
- Utilized AWS's computing power to execute ROS and Gazebo

Temple Robotics, Philadelphia, PA August 2019 – Present
Researching and Implementing ROS (Robot Operating System)
- Conducting extensive research on ROS and utilized the documentation on the ROS Wiki page
- Integrating Gazebo with ROS for simulation purposes, allowing for virtual testing
- Using SolidWorks to model the robot, and then create URDF's for simulations
- Programming in Java, C++, Python, and XML for robot control and 3D modeling

Volunteer Experience:
GOMAD Mission Trips, Dominican Republic August 2015 – May 2019
Devising creative ways to help others
- Repaved bridges, designed and constructed benches, repaired roofs for better living conditions
- Collaborated and communicated with a team to collect donations
- Achieved a rotary award for community service based off these mission trips

Affiliations:
Temple Robotics September 2019 – Present
Institute of Electrical and Electronics Engineers (IEEE) August 2019 – Present
FTC Robotics September 2018 – Summer 2019