168291 Litza Road
Hatley, WI 54440

Hunter Gipp

hdg630@gmail.com
(715) 470-3360

EDUCATION

Michigan Technological University	Houghton, MI

BS Robotics Engineering | GPA: 3.34 | Dept: 3.40 — Dec 2023
Dean's List: Spring 2020 (4.00), Fall 2022

DC Everest Senior High School	Weston, WI

HS Diploma | GPA: 3.73 — Jun 2019

WORK EXPERIENCE

Michigan Technological University | Houghton, MI
Autonomy Research Assistant | ECE Department — May 2023 – Aug 2023
Project: *MathWorks Simulation Challenge, GM-SAE AutoDrive Challenge II*
- Utilized the MathWorks Automated Driving Toolbox to create and visualize various simulated scenarios
- Used dynamic route planning, collision avoidance & lateral/longitudinal testing of pure pursuit & PID controllers
- Presented these simulations and insights gained to MathWorks judges at AutoDrive Challenge II
- Implemented path planning algorithms, sensor fusion, and code generation with Simulink

Project: *Robotic Platform Soil and Terrain Characterization for Close to Real Time GO/NOGO Maps*
- Sponsored by the Army Corps of Engineers, Construction Engineering Research Laboratory
- Worked independently to carry out testing and support for this automated system using ROS
- Added GPS tracking which is written to a test report CSV file using Python

Greenheck Group | Schofield, WI
Automation Engineering Intern — May 2022 – Aug 2022
Project: *WD Rollformer/Damper Blade Automation*
- Completed RobotStudio training through ABB
- Simulated and verified positioning using ABB robots and an automation-friendly riveter
- Built and wired electrical control panels for this project and other robotic cells
- Used Excel to track inputs and outputs for wiring and programming purposes

PROJECT EXPERIENCE

Michigan Tech Robotic Systems Enterprise (RSE)
Project: *MathWorks Simulation Challenge, GM-SAE AutoDrive Challenge II* — Aug 2022 – current
- Project Manager for the Simulation & Requirements Verification Team
- Used MathWorks tools to obtain sensor data and simulate components for controls and perception
- Automated testing using Python & ROS to validate the team's perception subsystem
- Utilized Gantt Charts to plan project timelines, allocate resources, and track team progress to ensure successful project execution

Project: *T-Shirt Cannon Team* — Aug 2021 – May 2022
- Created a mobile t-shirt cannon that can be controlled and fired remotely and safely to interactively promote RSE at university events such as hockey and football games
- Planned, analyzed, and documented progress to meet deadlines and pitch project continuation

TECHNICAL SKILLS

- ABB RobotStudio
- C/C++/Python
- Linux
- MATLAB
- MathWorks Automated Driving Toolbox
- ROS

CO-CURRICULAR INVOLVEMENT

Robotic Systems Enterprise	Aug 2021 – current
Club Baseball Team	Aug 2021 – current
Ski & Snowboard Club	Nov 2019 – current