

Wyatt Harris

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EDUCATION

Worcester Polytechnic Institute, Worcester MA

Robotics Engineering Major, BS/MS, 3.96, Graduation Date May 2025

SKILLS

Java, C++, Python, Solidworks, Matlab, C, 3D Printing, Laser Cutting, MathCAD, Soldering, Github, ROS

WORK EXPERIENCE

Worcester Polytechnic Institute

Prototyping Lab Assistant (April 2023 - Present)

- Oversee 30+ 3D printers and laser cutters in schools prototyping lab
- Assist and train students in creating prints and laser cuts

Mathnasium

Math Tutor (May 2022 - Aug 2022)

- Tutored students in math ranging from addition to algebra
- Worked with 2-3 students at a time, and wrote reports for their parents about their sessions

PROJECTS

Swarm Robotics Pathfinding Algorithm, Artificial Intelligence, (May 2023 - Present)

- I led a group of 4 to implement 3 emerging swarm pathfinding algorithms
- Simulated swarm robots navigating 2D environments using Python
- Analyzed and compared emerging algorithms in paper and presentation

SLAM Robot, Unified Robotics IV: Navigation, Localization, and Mapping (Oct 2023 - Present)

- Robot maps C-Space and use A* to navigate environment
- ROS used to run program on gazebo simulation and physical robot
- Future work includes implementing SLAM using LIDAR sensor to map environment

Robotic Grip Assist Glove, Research, (Mar 2023 - Nov 2023)

- Worked under a professor to make glove that grips objects with voice control
- Android App uses Bluetooth LE connection to microcontroller to open and close glove

Maze Solving Robots, Unified Robotics II: Sensing, (Sept 2022 - Nov 2022)

- Multiple robots navigate maze to exit door
- Use a wifi connection to an MQTT broker to upload and receive data
- Programmed PID control integrated with encoders, ultrasonic, and IR distance sensors
- Connections using I2C, UART, and more

SCHOOL ACTIVITIES

- *Ultimate Frisbee D3 Club Team, Chess Club, Phi Kappa Theta*

VOLUNTEER EXPERIENCE

FIRST Robotics Mentor, Belmont MA, (Dec 2021-March 2022)

- Ensuring that all members of the club are engaged and participating
- Enforce safety practice with any power tools (bandsaw, drill press, etc.)