

Ishan Porwal

732-354-9936 | ishanporwal2027@gmail.com | [linkedin.com/in/ishan-porwal](https://www.linkedin.com/in/ishan-porwal)

EDUCATION

Olin College of Engineering

Bachelor of Science, Electrical and Computer Engineering GPA: 4.00/4.00

May 2027

Needham, MA

EXPERIENCE

TTM Technologies

Incoming Automation Engineering Intern

Summer 2024

Stafford Springs, CT

- Develop, test, and deploy Industry 4.0 software for connecting the factory, multiple factories, and empowering end users

Olin Formula SAE Electric

Electrical Engineer

Sept. 2023 – Present

Needham, MA

- Coordinating with other electrical engineering students to complete MK6, Olin's sixth FSAE electric race car, to compete at Formula SAE Michigan
- Working on low voltage subteam to integrate and debug current electrical systems and add new integrated circuit boards for sensing and controls

Olin Rocketry

Electrical Engineer

Sept. 2023 – Present

Needham, MA

- Working with other avionics members to build custom PCBs with minimized footprints to collect data to control various rocket subsystems using components including 9-axis IMU, barometric altimeter, and Teensy 4.0
- Refactoring existing codebase to integrate with a new and enhanced avionics system

SwingVision, Inc.

Data Labeling & Analyst Intern

July 2022 – April 2023

Remote

- Labeled events such as racquet/court/net contact in approx. 200 tennis session recordings using the Computer Vision Annotation Tool (CVAT)
- Generated annotations used to train SwingVision's artificial intelligence model
- Recognized for performance and promoted to Data Quality Analyst
- Evaluated datasets to ensure accuracy, and provided feedback to aid other labelers

PROJECTS

Cooling Control Module | *KiCad, CAN, C*

Dec. 2023 - Present

- Developed a PCB control system for the cooling systems on MKVII, Olin's seventh FSAE electric race car, including radiator fan and water pump control functionalities
- Used embedded C programming language and CAN API to write firmware for the microcontroller, ensuring efficient and reliable operation of the cooling control module
- Implemented CAN protocol to facilitate communication between cooling control module and other components of vehicle such as motor controllers, enabling real-time exchange of temperature data

WareBot | *Python, Arduino IDE*

Dec. 2022 – June 2023

- Led team of 4 in addressing lack of automation in warehouses and occupational injuries due to forklift accidents, based on prior personal research that was presented to former US Assistant Secretary of Labor
- Created small-scale automated forklift that brings pallet of goods to desired destination and has ability to return it to original location
- Included programmable movement, prong rotation, and linear slide lift using Raspberry Pi, Arduino Mega, as well as motor controllers

SKILLS & CERTIFICATIONS

Technical Skills: Solidworks, AutoCAD, CVAT, Python, Arduino, R, SQL, MatLab, KiCad, Pandas, Excel, Ignition

Non-Technical Skills: Project Management, Collaboration, Communication, Time Management, Troubleshooting

Certifications: OSHA 10 Hour General Industry

Interests: Tennis, Music(Piano), Board Games