Adam Iantorno

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EDUCATION

University of Waterloo
Sep 2019 - May 2024

- Candidate for Bachelor of Applied Science, Mechanical Engineering with Artificial Intelligence Option

Appleby College
Sep 2014 - June 2019

- School Prefect, Captain of Cross Country Team, Model United Nations

SKILLS

Languages & Frameworks: Python, JavaScript, C++, Shell/Bash, ROS2, Git, ReactJS, Linux, Arduino

Design: SolidWorks, Siemens NX, Altium 365, and MATLAB

WORK EXPERIENCE

Robotics Developer, Impossible Metals
Collingwood, Ontario — *Sep 2022 - Dec 2022*

- Programming 1DOF arm in **Python** & **ROS2**; operating a linear actuator and cameras to test seafloor plume
- Created **React TypeScript UI** to monitor and toggle all vehicle housings through **ROS2 service calls**.
- Assisting in vehicle deployments on the water by activating vehicle housings and setting control systems

Mechatronics Engineer, Electrans Technologies Ltd.
Oakville, Ontario — *Jan 2022– April 2022*

- Designed and built HIL test fixture to test sensors and pneumatics with custom firmware (see projects)
- Led design of automotive wire harness with diagramming software and sourced IP6k9k connectors
- Created 3D models and engineering drawings using **SolidWorks** of sheet metal brackets for MVP

Software Engineer, GrantMatch
Toronto, Ontario — *May 2021– Oct 2021*

- Created web app using **Django** and **Rest APIs** to track and process client invoices and legal documents
- Led software team and collaborated with data team in design of new SaaS product for small businesses
- Developed referral form function with **React JS** front-end framework to acquire new clients for company

Autonomous Driving Sensors Diagnostics Lead, Alternative Fuels (Eco-Car) Design Team
Waterloo, Ontario — *Sep 2019 - Aug 2020*

- Programmed **C++** radar diagnostic algorithm in **ROS** which was implemented into vehicle firmware
- Analyzed collected sensor data using **MATLAB** to determine sensor error values and ranges
- Designed unit test cases for sensors and diagnostic algorithm by performing **DFMEA** analysis

KEY PROJECTS

Personal Website: adamiantorno.ca

- Built using React JS frontend framework and SASS for styling, code available on GitHub

Autonomous Pick and Place Robot Arm
In Progress

- Programmed 3DOF robot arm to autonomously control servo and stepper motors with **Arduino** and drivers
- Developed **object-detection** algorithm based on HSV color contrast with **Python** ***OpenCV***

Hardware in Loop Testing Fixture
Jan 2022 - March 2022

- Generated **SolidWorks** model, electrical schematics in **Altium**, and sourced components for testing fixture
- Created **Arduino** function that converts UART signals to **J1939 CAN** to communicate with vehicle