

Shaun Plassery

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EDUCATION

McMaster University

*Bachelors of Engineering Co-Op, **Free Choice** Candidate (Grade: 96%+)*

Hamilton, ON

Sept. 2023 – April 2028

Kenner Collegiate Vocational Institute

*Highschool Diploma — IB Courses, **HL:** Chemistry, Physics, English*

Peterborough, ON

Sept. 2019 – June 2023

EXPERIENCE

Electrical Subteam Member

Nov. 2023 – Present

McMaster Deep Space Analogue Research Expedition (DARE)

Hamilton, ON

- For Project CANARY, we developed a LiDAR based drone that can take 3D scans of environments such as caves remotely and output it on the mainframe.
- Currently working on Project NARWHAL, to make a similar attachment for underwater terrain.
- Designing the PCB Board, Battery Circuit and Battery Packs for project NARWHAL using Fusion360 and AUTOCAD Inventor.
- Coding for our sensors onboard such as the heat sensor, and humidity using an ESP32 Microcontroller in C++.

Software Specialist

Dec. 2023 – Present

McMaster Sumobot Competition

Hamilton, ON

- Wrote code for the Arduino built and troubleshoot the sensors onboard to optimize staying in a white circle mat.
- Built the bot on CAD, 3D printed it and designed the circuits onboard.

Teaching Assistant

June 2018 – Dec 2022

Kumon Math and Reading Centre

Peterborough, ON

- Planned and implemented engaging activities for elementary and high school students.
- Implemented homework plans for the students in between their Kumon sessions.

PROJECTS

QuakeGuard | [HTML](#), [TailWindCSS](#), [Python](#), [TypeScript](#), [NextJS](#), [Figma](#), [SciKit](#), [Flask](#), [Pandas](#)

Jan. 2024

- Developed a full-stack website and ML model meant to forecast earthquake magnitude in geographical regions using historical data. Empower the community by having a donate tool to send money to those high-risk areas.
- Developed the front end in Typescript and TailwindCSS running on a NextJS/Flask stack.
- Developed an ML Model from historical data on earthquakes in Kaggle, trained it using Pandas analysis and a Sci-Kit ML software along with Google Cloud APIs, integrating it onto our website using Flask.
- Deployed it on the web using Vercel and Google Cloud for DeltaHacks.

DeltaHacks Web Dev Challenge | [HTML/CSS](#), [Bootstrap](#), [ReactJS](#)

Dec. 2023

- Developed a front-end web portfolio using Replit and connected it to Github Pages
- Won 2nd in the whole competition hosted in McMaster University

OptiMed Canada | [HTML/CSS](#), [Java](#), [Bootstrap](#), [OpenCV](#), [MediaPipe](#)

July 2022 – Dec. 2022

- Programmed a full-stack prototype app and website that can pre diagnose illness and send data on the patient's pain, where they need attention and personal information to doctors before the patient arrives to hospital.
- Devised a CAD model for the companion device which can be used as well to assist in sending data.
- Done through a summer enrichment camp called SHAD in a team of 6 people, receiving valuable teamwork skills and programming knowledge in Java, HTML and CSS. Received \$1,000 of funding from Ontario Tech University, with preliminary testing done at hospitals.

Phytoremediation of Crude Oil: Effect of Enhancers on Oil Stress (v1&v2) | [ImageJ](#)

Dec. 2019 - May 2021

- A 3-year project built upon a science fair project in grade 8 on how to combat oil spills.
- Worked at the Trent University Science Emery Laboratory and worked along with Prof. Anna Kisiala.
- Got multiple silver medals at Canada Wide Science Fair and presented it to investors at Lassonde Business School.

TECHNICAL SKILLS

Programming: : Java, Python, C/C++, mySQL, TypeScript, JavaScript, MATLAB, ReactJS, HTML/CSS, LaTeX

Tools: Bootstrap, Next.js, Node.js, ReactJS, Flask, Pandas, SciKit, Google Cloud, Vercel, TailWindCSS, Kaggle, Tkinter, Flask, Git, PyCharm, Replit, Quanser Q-labs, Granta, Soldering