Yax Patel

pately43@mcmaster.ca | +1 (289) 244-9978 | yaxpatel.me | linkedin.com/in/ypatel2004 | github.com/ypatel2022

Education

McMaster University September 2022 — May 2026
Bachelor of Engineering (B. Eng) - Computer Engineering *Hamilton, ON*

- **Cumulative GPA**: 3.80/4.00, Deans' Honour List
- **Relevant Courses**: Data Structures & Algorithms, Logic Design, Principles of Programming

Technical Skills

Languages: C, C++, C#, Python, JavaScript, TypeScript, HTML, CSS, MATLAB
Technologies: React, Redux, Next.js, SSR, Node.js, OpenGL, MongoDB, TailwindCSS
Developer Tools: Git, Docker, AWS, Google Cloud Platform, Unix, Postman, Figma

Experience

Mission Operations & Controls - Software Developer September 2023 — Present
McMaster Interdisciplinary Satellite Team *Hamilton, ON*

- Develop automation scripts for sensor data collection and automation of processes, enhancing **operational efficiency by 63%.**
- Design mission control dashboards for real-time visualization of satellite data through **Grafana.**
- Manage **Linux** servers for secure and reliable data processing.
- Ensure thorough documentation using **Confluence**, adhering to best practices in software development.

Software Engineering Intern June 2023 — August 2023
SynPage *Waterloo, ON*

- Led the development and maintenance of a desktop application utilizing **React, TypeScript, Rust, and Python.**
- Significantly improved development efficiency by **reducing build times by 80%.**
- Played a key role in integrating a machine learning Python project into the frontend of the application.
- Collaborated on **computer vision** and machine learning projects, successfully integrating machine learning components into the app.
- Achieved a **23% increase** in object recognition accuracy after cleaning and labeling the dataset.
- Utilized user interface design skills to recreate the interface, improving clarity and enhancing the overall user experience.

Projects

VisuAlgo | ***C++, SFML***

- Created an interactive visualization tool to explore various search and sorting algorithms.
- Integrated intuitive **big O notation** graphs to provide a clear analysis of algorithmic efficiency.
- Enabled users to evaluate **time complexity** by running and analyzing their custom code, offering practical insight into **algorithm efficiency**.
- Utilized multithreading to increase program rendering **efficiency by 24%** for the visualization.

Verifme | ***Node.js, Express.js, MongoDB, Heroku***

- Created a platform that connects high school students and helps to break isolation barriers.
- Led the Development of a **1st place-winning** web app in 48 hours with team members at the PTC CodeAgainstCovid Hackathon.
- Designed a **CRUD API** using **Node.js and Express.js.**
- Conceptualized and planned out a comprehensive prototype in **Figma** to help guide development.
- Collaborated in a fast-paced environment to deliver a high-quality product within the time constraint.