Yax Patel

Email | LinkedIn | GitHub

EDUCATION

McMaster University   Hamilton, ON
Bachelor of Engineering - Computer Engineering   *September 2022 – April 2026*

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, C, C++, C#, Python, SQL, HTML/CSS
Frameworks: React, Node.js, Express.js, RESTful APIs, SFML, Unity, Arduino, Tauri
Developer Tools: Git, npm, Google Cloud Platform, Firebase, MongoDB, JSON, VS Code, Visual Studio

EXPERIENCE

Software Engineer   June 2023 - Present
SynPage   *Waterloo, ON*
- Lead the development and maintenance of a desktop application utilizing React, TypeScript, Rust, and Python.
- Significantly improved development efficiency by reducing build times by 70%.
- 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.
- Utilized user interface design skills to recreate the interface, improving clarity and enhancing the overall user experience.

Creator and Developer   November 2020 - July 2022
Mash Backslash Studios   *Hamilton, ON*
- Developed multiple video games using C# in the Unity game engine in a group of two high school students.
- Expanded games by adding new features and optimizations, resulting in improved game performance and user experience.
- Placed first at the Westmount Coding Club Game Jam and second at the 48 + 8 Jam 2021.
- Organized the KeysToTheJam 2021 game jam, which attracted 25+ participants and generated positive feedback from attendees.

PROJECTS

Fluid Simulation | *C++, SFML*
- Created an accurate and precise fluid simulation based on a research paper on fluid dynamics.
- Employed numerous optimization techniques to improve the performance of the simulator.
- Continuously tested and debugged the project to ensure smooth and efficient functioning.
- Resolved optimization and performance challenges by using strong problem-solving skills.

mflix | *React, MongoDB, HTML/CSS/JavaScript*
- A movie information browsing web app that uses a MongoDB database to display descriptions, ratings and more.
- Implemented efficient search functionality by indexing and querying MongoDB database using serverless functions.
- Optimized performance with client-side caching and server-side rendering
- Demonstrated proficiency in creating full-stack web apps using various front-end and back-end technologies.

Verifme | *Node.js, Express.js, HTML/CSS/JavaScript, MongoDB, Heroku*
- A platform that connects high school students and helps to break isolation barriers.
- Developed a 1st place-winning web app in 48 hours with a group at the PTC CodeAgainstCovid Hackathon.
- Designed and planned out a comprehensive prototype in Figma to help guide development.
- Constructed MongoDB database schemas for user posts.
- Collaborated in a fast-paced environment to deliver a high-quality product within the time constraint.

Backend Bruno | *C#, Unity, PlasticSCM*
- A zombie-survival/shooter game with an emphasis on verticality.
- Collaborated in a group of two high school students over the span of 10 months to develop in Unity with C#.
- Optimized game by analyzing Unity's profiler to identify areas of improvement in the game's code.
- Accumulated 17,000 impressions within the first 7 days of release.
- Implemented new game mechanics and features, resulting in positive feedback from players and increased engagement.