Shiv Patel

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Education

McMaster University Hamilton, Ontario

Bachelor of Engineering (B.Eng), Computer Engineering (ECE) Co-Op

Sept. 2023 - Apr. 2028 (Expected)

- Relevant Courses: Data Structures & Algorithms, Design & Projects in Engineering, Principles of Programming, Logic Design, Circuit Analysis, Artificial Intelligence Innovative Technologies, Probability & Statistics For Engineers
- <u>Clubs & Teams</u>: MacEng Ambassador & Tour Guide, DeltaHacks (**Hackathon Participant**), McMaster Intramural League (**Game Day Official & Participant**)
- Awards: McMaster Engineering Dean of Excellence Award (\$7500), McMaster University Award of Excellence (\$3000)

Projects

Finance Trend Plotter — •

January 2025

Python, Pandas, yfinance, Matplotlib, Jupyter Notebook, numPy

Personal Project

- Developed a tool to fetch and analyze 2 years of stock data using yfinance and visualized trends with 50-day and 200-day moving averages.
- Created a production-quality plot with Matplotlib, including a professional title, labeled axes, and clear chart elements.
- Utilized Jupyter Notebook for interactive analysis and seamless integration of Python libraries like pandas for data manipulation.

Personal Website/Portfolio — 🗘 🏶

December 2024

TypeScript, Next, React, TailwindCSS, JavaScript, Git

Personal Project

- Designed and developed a fully responsive personal portfolio website using **Next.js**, **React.js**, **and TailwindCSS**, optimizing for both desktop and mobile experiences.
- Implemented dynamic routing and efficient state management to showcase projects, skills, and professional achievements seamlessly.
- Leveraged **TypeScript and Git** for robust code structure and version control, ensuring maintainability and scalability of the project.
- Integrated SEO best practices and web performance optimization techniques, achieving improved search engine visibility and faster load times.

Snake Game —

November - December 2024

C/C++, Git

Academic Project

- Developed a classic **Snake Game** using **C/C++**, utilizing **VSCode** to design an interactive, live-updating UI that dynamically responds to user input and game events.
- Implemented core game mechanics such as **real-time collision detection** and adaptive gameplay logic, ensuring smooth performance and an engaging user experience.
- Leveraged **object-oriented programming (OOP)** to modularize game components, improving code readability and enabling seamless feature expansion.

Work Experience

Software Development Officer — **(#)** *MicroBuild Engineering Society McMaster*

September 2024 - Present

Hybrid

• Ensure website maintenance by performing regular updates, fixing bugs, and optimizing the site for performance using **React**, **Next.js**, and CSS frameworks such as **Bootstrap** and **Tailwind CSS**.

- Collaborate in a **team environment**, working closely with designers, content creators, and other developers to implement features, review code, and maintain **version control** using **Git**.
- Enhance the website's functionality and design by integrating **React components**, implementing responsive layouts with **Bootstrap** and **Tailwind CSS**, and optimizing for user experience.

Living Learning Community (LLC) Community Advisor (LLC CA)

April 2024 - Present

McMaster University - Housing & Conference Services (Residence Life)

Hybrid

- Used Teams, Outlook, and Excel for scheduling, reporting, and tracking key performance metrics.
- Ensure all participants' physical, mental, and social safety, promptly reporting any issues to supervisors.
- Maintain confidentiality while liaising with internal stakeholders on student services matters.
- Organized 6+ community events each semester, using Excel and Microsoft Project for budget and task management.
- Created event flyers and digital content using Canva, increasing engagement by 25%.

Skills

Languages: Python, C/C++, HTML/CSS, JavaScript, TypeScript, MATLAB, LaTeX, R

Frameworks/Libraries: Next, React, TailwindCSS, Pandas, Matplotlib, yfinance, numPy

Hardware: Verilog (HDL), Arduino, Analog Discovery 2/3, Quanser Technologies

Tools: GitHub, Git, Figma, Quartus, LTSpice, PSpice, OrCAD VS Code, Jupyter Notebook, Microsoft Office (Excel, Teams,

Outlook, Word, PowerPoint), AnsysGranta, AutoCAD, PrusaSlicer, Aceternity UI, Framer

Certifications/Training: WHMIS 2015, First Aid & CPR/AED (Level C), safeTALK, AODA, Ontario G-Class License