Shiv Patel

+1 (647) 294-0235 pates302@mcmaster.ca shiv-sp shiv-sp www.shivpatel.vercel.app

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
- Clubs & Teams: Microbuild Engineering Society (**Software Development Officer**), McMaster Gujarati Students Association (**VP Finance**), MacEng Ambassador Program (**Tour Guide** & **Computer Engineering Ambassador**), DeltaHacks (**Participant**), McMaster Intramural League (**Game 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 **stock data**, given dates and specific stock names via user inputs
- 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 — **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.

Snake Game — **November - December 2024**

C/C++, Git *Academic Project (Collaborative)*

- 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.

Revenge of The Recycling System — **January 2024 - February 2025**

Python, Quanser Technologies *Academic Project (Collaborative)*

- Collaborated in a team environment to designed and implement a **recycling simulation system** using **Python** and **Quanser technologies**, simulating automated sorting processes for environmental awareness.
- Integrated **real-time control algorithms** to manage conveyor belt movements and object detection, ensuring accurate sorting and system efficiency.
- Utilized **Quanser's graphical interface** for **verification and testing**, ensuring system accuracy and validating sorting operations.

Work 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, UML

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

Hardware: Verilog (HDL), Arduino, Analog Discovery 2/3, Quanser Technologies, Lego Robotics, Microcontrollers, Microprocessors

Tools: GitHub, Git, Figma, Quartus, LTSpice, PSpice, Keil uVision, OrCAD, VS Code, Jupyter Notebook, Microsoft Office (Excel, Teams, Outlook, Word, PowerPoint), AnsysGranta, AutoCAD, PrusaSlicer, Aceternity UI, Framer, MacOS, Windows, Linux

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