Viransh Shah

Computer Science Student (Level 4)

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Highlights of Qualifications

- Seeking job opportunities starting May 2026.
- Strong analytical, attention to detail, and problem-solving skills developed through computer science and math courses.
- Demonstrated excellent teamwork, time management, and communication skills through collaboration with the McMaster Competitive Programming Club and participation in various CTF events.

Education

McMaster University (Level 4) Expected May 2025

Bachelor of Applied Science in Computer Science *Hamilton, Ontario*

- Dean's Honours List: Maintained a GPA of 3.5 or higher (GPA: 3.7 / 4.0)
- **Databases (A+)**: Focus on ER Diagrams, SQL queries, Relational Data Models, Dependency Theory, and Deadlocks for transactions.
- **Data Structures and Algorithms (A+)**: Covered various data structures (e.g., Stack, Queues, Graphs) and algorithms (e.g., sorting, hashing).

Experience

McMaster University Jan 2024 – Apr 2024

Teaching Assistant - Data Structures & Algorithms (SFWRENG 2C03) *Hamilton, Ontario*

- Led tutorials reinforcing lecture content and deepening student understanding of algorithms and data structures.
- Evaluated assignments, midterm, and final exam per grading rubrics.
- Provided timely, constructive feedback to support student improvement.

McMaster University Sept 2025 – Dec 2025

Teaching Assistant - Software Engineering Practice and Experience: Development Basics (SFWRENG 2XC3) *Hamilton, Ontario*

- Led 2-hour in-person labs reinforcing lecture content and providing hands-on practice with Linux, Git, GitHub, and C programming.
- Assisted students with lab exercises, individual assignments, and team projects, ensuring comprehension of software development workflows.
- Provided timely, constructive feedback on lab milestones, individual assignments, and team assignments to support student improvement.

McMaster Cyber Society Sept 2023 – June 2025 (MCP), July 2025 – Present (MCS)

Founding Executive Member *Hamilton, Ontario*

- Competed in CTFs using Kali Linux, Nmap, Metasploit, and Wireshark for cybersecurity, cryptography, and reverse engineering challenges.
- Developed skills in incident response, log analysis, password cracking, binary exploitation, attack chain analysis, and networking, incorporating lessons from Advent of Cyber, SFWRTECH 4NS3, and TryHackMe learning modules through CyberStart Canada.
- Secured 2nd place as MacHackers Team in CyberSci 2025, representing McMaster (photo).

Environment and Climate Change Canada Sept 2024 – Apr 2025

Scientific Support Technician (Full Stack Developer) - IMWEBs Viewer Project *Burlington, Ontario*

- Developed the IMWEBs Viewer, a cross-platform desktop application for visualizing and analyzing watershed data through interactive tables, graphs, and maps, leveraging technologies like Vue.js (frontend), Tauri, and Python Flask (backend).
- Packaged the app with Tauri as a standalone executable for Windows, macOS, and Linux. Migrated deployment to a Windows Server VM from UoG, hosting the Vue.js frontend via IIS over HTTPS with a reverse proxy to the Flask backend.
- Authored detailed technical documentation covering methodologies, tools, and implementation guides.

Canada Water Agency May 2025 – August 2025

Full Stack Developer - CWA Viewer (IMWEBs Extension) *North York, Ontario*

- Extended IMWEBs Viewer to ingest Excel-based BMPs, performance measures, and water quality data into a unified SQLite database, and integrate shapefiles and rasters into GeoPackages.
- Developed tools for tables, graphs, maps, and data conversion based on supervisor-defined requirements to support interactive environmental analysis. Deployment on an Azure VM form ECCC with the same configuration as IMWEBs.

Technical Skills

Languages: Vue, Nuxt, React, HTML, CSS, JavaScript, Python, Haskell, C, Java, Bash, PowerShell, SQL, LaTeX
Technologies: Electron, Tauri, VirtualBox, Docker, Google Cloud, Azure, SQLite, Tailwind CSS, Git, GitHub, Flask, GNU/Linux
Certificates: Hackfinity Certificate of Completion, Pre Security Certificate of Completion Cyber Security 101 Certificate of Completion