# Viransh Shah

Computer Science Student (Level 3)

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## Highlights of Qualifications

- Seeking co-op position starting May 2025 for 4 months and May 2026 for 4, 8, 12, or 16 months.

- 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 3)**                                                   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*                               *Hamilton, Ontario*

- Led interactive tutorial sessions to reinforce and expand upon concepts covered in lectures, fostering a deeper understanding of data structures and algorithms among students.
- Conducted thorough and consistent evaluations of student assignments, midterm, and final exam in adherence to provided grading rubrics.
- Maintained a commitment to providing timely and constructive feedback to students, helping them understand key concepts and improve their skills.

**McMaster Competitive Programming Club Member**                                   Sept 2023 – Present

*CyberSci Team Member*                                                            *Hamilton, Ontario*

- Participated in CTFs with the McMaster Competitive Programming Club and CyberSci team, utilizing tools like Kali Linux, Nmap, Metasploit, and Wireshark to solve challenges in cybersecurity, cryptography, threat hunting, reverse engineering, malware analysis, and network traffic analysis.
- Developed skills in incident response, log analysis, password cracking, binary exploitation, attack chain analysis, and networking (including TCP/IP, DNS, and firewall configuration), incorporating lessons from Advent of Cyber 2023, 2024 and SFWRTECH 4NS3 university course.

**Environment and Climate Change Canada**                                          Sept 2024 – Present

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

- Developed the IMWEBs Viewer, a cross-platform desktop app for watershed data visualization and analysis.
- Built the frontend with Vue.js and a Flask-based Python backend for data processing, queries, and analytics.
- Packaged the app with Tauri as a standalone executable for Windows, macOS, and Linux.
- Authored detailed technical documentation covering methodologies, tools, and implementation guides.

## Technical Skills

**Languages**: Vue, React, HTML, CSS, JavaScript, Python, Haskell, C, Java, Bash, SQL, LaTeX, R, SAS, Prolog
**Technologies**: Electron, Tauri, VirtualBox, Google Cloud Storage/APIs Usage/VM, SQLite, Tailwind CSS, Astro, Flask, GNU/Linux
**Concepts**: Operating Systems, Virtual Memory, Database Normalization, Web Exploitation, Cryptography, Reverse Engineering, Forensics, OSINT, Binary Exploitation, Threat Hunting, Malware Analysis, Incident Response, Log Analysis, Secure Coding, Privilege Escalation, Password Cracking, Network Traffic Analysis, Attack Chain Analysis, Defensive Security, Security Operations Center (SOC) Practices, Threat Intelligence