Ryaan Farrukh

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EDUCATION

Seneca Polytechnic College **Jan 2024 - May 2026**
Computer Programming & Analysis Co-op **Toronto, Ontario**

SKILLS

Languages	C/C++, Python, Go, JavaScript, HTML/CSS, SQL
Technologies	Git, Jira, Docker, AWS, MongoDB, Postgres
Frameworks	React.js, Express, Node.js, Next.js, Tailwind, Flask

WORK EXPERIENCE

Software Developer Intern **Jan - Apr 2025**
Unity Fitness **Toronto, Ontario**

- Developed and deployed **JavaScript-based automation workflows**, **reducing manual tasks** and improving efficiency by **40%**.
- Built interactive UI components using **JavaScript and custom logic**, enhancing **user experience and platform responsiveness.**
- Optimized **MongoDB queries**, cutting response times by **60%** and ensuring **99.9%** data accuracy across **10,000+ records.**
- Independently designed and launched a full-stack web application with **React, Node.js, and MongoDB**, with **GPT-3 integration**
- Conducted **API testing** and validation with **Postman**, improving system reliability and **reducing bugs during integration**.

Electrical Apprentice **Jul 2022 - Dec 2023**
Rapid Electric **Toronto, Ontario**

- Assisted in the installation, repair, and maintenance of electrical systems, ensuring compliance with electrical safety codes.
- Conducted troubleshooting of circuits, wiring, and layouts, reducing downtime by **40%** and saving **20%** more material.
- Collaborated with team members to complete complex installations and house wiring, consistently meeting project deadlines.
- Supported senior electricians with wiring, conduit installation, and blueprint interpretation, increasing project efficiency by **15%**.

PROJECTS

MarketVision | Go, Node.js, Next.js, MongoDB **Feb 2025** ⎘

- Developed a **Go** backend with **Gin** to process image-based AI requests and return structured product descriptions.
- Built a **Next.js** frontend with **Tailwind CSS** for a seamless user experience and real-time AI-generated results.
- Implemented **user authentication** with **JWT, bcrypt** and **MongoDB**, enabling secure login for **15+ users**
- Designed a **MongoDB schema** to store user-generated prompts, AI responses, and associated image data in **base64 format.**
- Optimized **API response handling** and UI for **improved performance**, scalability and user retention.

Virtual File System | C++ **Mar 2025** ⎘

- Developed a **virtual file system** in **C++** using a binary file to simulate disk storage with **manual block-level allocation.**
- Implemented **core shell commands** such as **mkdir, touch, cd, write, cat and rm** to manage files and directories
- Designed a **custom metadata structure** to maintain file hierarchies and **support recursive traversal**
- Added **user-login** with **hashed UIDs** and enforced **UNIX-style permission bits (rwx)** for secure access control

Hand Gesture Recognition System | Python, OpenCV, MediaPipe **Sept 2024** ⎘

- Designed a hand gesture recognition system using **Python with OpenCV and MediaPipe** to control computer actions via webcam.
- Implemented **hand detection** and **gesture tracking algorithms** to identify open-palm, first, and thumbs-up like gestures.
- **Mapped gestures to system actions**, allowing hands-free control of **media playback, mouse movements, and other actions.**
- **Optimized for best performance** in real-time, ensuring smooth and **responsive gesture recognition.**