Rushil Karani

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EDUCATION

McMaster University (B. Eng)   Sep. 2023 – Apr. 2027
Honours Software Engineering (3.9 GPA), Dean's Honour Roll (2024, 2025)   *Hamilton, ON*
Relevant Coursework: *Data-Structures & Algorithms, Databases, OOP (Java), Software Design Principles, Concurrent Systems, Linear Optimization.*

KEY SKILLS

Languages: JavaScript, Java, Python, C/C++, TypeScript, SQL, MATLAB, Bash, Verilog, YAML, UML.
Developer Tools: Node.js, React.js, Express, Spring Boot, Angular, Tailwind CSS, HTML/CSS, MongoDB, Git, CI/CD, MySQL, Pandas, NumPy, Matplotlib, Linux, Microsoft 365, Google Workspace, Maven, Cohere API, Google API
Courses: Learning Cloud Computing: Core Concepts *(LinkedIn)*, Learning AWS for Developers *(LinkedIn)*, Cybersecurity Foundations *(LinkedIn)*, Microsoft Azure Foundations *(LinkedIn)*.

PROJECTS

HealthConnect | ⎋ | *JavaScript, Node.JS, React.JS, MongoDB*   Jan. 2025
- Developed a **healthcare web application**, to reduce wait times in **5** walk-in clinics by **up to 20**%.
- Used the **MERN stack for full stack** app development, increasing production **speed by 5 hours**.
- Developed an **AI chatbot** using **Cohere's** API and **resolved 10+** complex issues in the chatbot and UI.
- Implemented doctor and patient **UIs** to communicate/book appointments, increasing **usability by 50%**.

EquiHire | ⎋ | *Python, Google Vision API, Java, JavaScript, React, SQL*   Feb. 2025
- Built an **AI** resume screening tool that reduced hiring biases **by 30%** and speeds up hiring process **by 10%**.
- Used **Google Cloud Vision** API, **Flask** and **SQL** to build a resume screening tool with **90% accuracy**.
- Troubleshot **5+ complex issues**, overcoming challenges like **API integration** and **Git merge** conflicts.

MatrixMate | ⎋ | *C, Git, Bash, Linux Command Line*   Dec. 2024
- Built a Matrix Calculator **using C**, capable of efficiently performing **6+ complex matrix operations**.
- Improved **runtime efficiency by 25%** with optimized **memory allocation**, **pointers** and **dynamic arrays**.
- Accelerated development time **by 20%** using GitHub workflows for automated testing across **30+ commits**.

ScholarSync | *Java, Vaadin, UI/UX*   Jun. 2023
- Built a **web app** to help students log notes, track tasks, and calculate GPA, **boosting productivity by 30%**.
- Implemented **Java** backend logic and a modern GUI using **Vaadin's framework**, improving usability by **50%**.
- Followed **SDLC** and **Agile**, iterating on client feedback to **enhance 5 features** and **resolve 15** usability issues.

McMaster Engineering Competition - Won 2nd Place   Nov. 2024
- Designed a smart, non-invasive drone that **reduces crime scene investigation times by up to 5 hours**.
- Heavily focused on ethics; making the drone socially, environmentally, and economically ethical and sustainable.
- Earned **2nd Place (out of 10 teams)** in Innovative Design at the **McMaster Engineering Competition.**

EXPERIENCE

FIRST Robotics - Programming Subteam   Sep. 2022 – Jun. 2023
Glenforest FRC Team   *Mississauga, ON*
- Helped **design a robot** that competed against other robots at the **FIRST Robotics Competition**.
- Increased bot speed by **10% from previous years**, by using the **colour sensors for position tracking**.
- Reduced bot latency by **15%** by using a **pipeline architecture** and efficient memory allocation.

Facilitator - YEY Leadership Course   Jun. 2021 – Apr. 2023
Youth Empowering Youth Foundation ⎋   *Vancouver, BC*
- Facilitated multiple **workshops** for high school students and coached them to **build leadership skills**.
- **Empowered** participants to become **future leaders** by promoting skill development tasks and personal growth.
- **Reinforced** my leadership, facilitation and self-management skills, alongside building new technical skills.