

Ashmaan Sohail

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EDUCATION

Queen's University

Bachelor of Applied Science in Computer Engineering

Relevant Coursework: APSC 141 Intro to Programming, APSC 102 Experimentation

Kingston, ON

Expected May 2028

EXPERIENCE

Full Stack Developer

June 2022 – Present

MNAFS

Kingston, ON

- Co-founded MNAFS, a clothing reselling business targeted to South-Asian women across Ontario
- Designed and developed a responsive e-commerce website using React.js, Node.js, and MySQL, integrating Express.js for the backend and automated scripts for system reliability
- Improved operational efficiency by troubleshooting and implementing wireless checkout systems, integrating Square API for seamless transactions, and driving a 40% revenue increase
- Generated over \$15,000 in sales revenue while handling customer interactions and maintaining high client satisfaction
- Conducted manual testing of website functionalities, identifying user experience issues and fixing bugs to improve site navigation, increasing user engagement by 15%

EXTRACURRICULARS

Team Lead Developer | *Queen's University Web Development*

Jan 2025 – Present

- Led a team of four developers in building a real-time event planning platform, using Python (Flask/FastAPI) and SQL to manage scalable backend infrastructure through linux-based servers
- Developed a React-based front end with JavaScript, TypeScript, and HTML/CSS, integrating real-time updates via WebSockets, improving system responsiveness by 30%
- Streamlined communication and task management using GitHub and Trello, ensuring 100% on-time project delivery

AI/ML Research | *Queen's Hyperloop Design Team*

Sept 2024 – Present

- Utilized QGIS to establish and analyze 50+ nodes along proposed Hyperloop routes, optimizing travel time and energy efficiency by 25% through spatial analysis tools and plugins like GeoPandas
- Collaborated with team members to refine the integration of AI with geographical data, with ultimate goal to reduce potential travel time
- Conducted data-driven research using Python and SciPy to determine the best routes for Hyperloop systems

PROJECTS

First Responder Prefex Test (Toronto Police) | *Python, Pandas, Arduino*

Jan 2025 – Present

- Developed an Arduino-based multitasking assessment system for the Toronto Police, integrating Python and PySerial to synchronize test elements and simulate real-world dispatch challenges
- Designed a dual-laptop testing framework with sensor-driven input recognition and adaptive task sequencing, improving test accuracy by 30%
- Optimized test logic with failover mechanisms, ensuring 40% greater resilience against system failures while maintaining a scalable and cost-effective assessment tool

BrailleBridge (James Dyson Award Candidate) | *Swift, AVFoundation, XCTest, UIKit*

Oct 2024 – Jan 2025

- Developed a mobile app enabling communication for the deaf and blind by converting text to Braille and vice versa, achieving over 98% text recognition accuracy using OCR
- Designed an automated test script for UI responsiveness using SwiftUI and XCTest.
- Leveraged AVFoundation and Vision frameworks to enhance real-time voice-to-text and image-to-text capabilities, reaching 95% accuracy in voice recognition

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript, HTML/CSS, Swift

Frameworks: React, Node.js, Flask, FastAPI, pandas, NumPy, Matplotlib, Django, JUnit, PyTest, Linux

Awards/Distinction: Pulsar LanucnPad Member, Horatio Alger Scholar, Hypatia Math Contest Distinction