Nabeel Rouhani

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EDUCATION

Carleton University 2023 – Present
Bachelor of Computer Science Honours, Management and Business Systems Stream, CO-OP *Ottawa, ON*
- **Awards:** 2nd Place, cuHacking 2025, Carleton Impact Challenge. Recipient of a merit-based scholarship.
- **Coursework:** Data Structures & Algorithms, Operating Systems, Database Management, Web Applications.

EXPERIENCE

Embedded Systems Engineer September 2025 – Present
CUonOrbit - Carleton University *Ottawa, ON*
- Engineering embedded C++ software for the HAB-3 (High-Altitude Balloon) to sample 6-axis MPU-6050 IMU data via I^2C for in-flight monitoring and persistent, timestamped telemetry logging.
- Leveraging HAB-3 as a hardware–software testbed to refine reusable C++ modules for I/O, logging, and fault handling while validating the hardware stack for integration into the **Kâhkâkiw-Sat CubeSat**, contributing to early wildfire detection efforts in Canada through atmospheric monitoring and a LoRa-based downlink.

Software Implementation Intern June 2024 – August 2024
Saudi Optics House *Jeddah, Saudi Arabia*
- Deployed the company's first **integrated database** and point of sale system with barcode based inventory, provisioning Zebra label printing and scanning across 10 sites.
- Served as the primary liaison between management and the software vendor, translating operational needs into requirements, aligning scope, resolving issues, and coordinating implementation within 6 weeks.

Assistant Web Developer January 2023 – September 2023
Bahá'í International Community *Remote*
- Collaborated with developers to maintain and **deploy full-stack websites** using DatoCMS, streamlining content updates, fixing bugs, and improving SEO performance across a portfolio of websites.

Refugee Camp Volunteer December 2022 – June 2023
Beit Al-Weibdeh *Amman, Jordan*
- Collected and distributed **humanitarian aid** for displaced families during the Turkish-Syrian earthquake crisis in coordination with the Jordan Hashemite Charity Organization (JHCO).

PROJECTS

MithqalCalculator.com **Deno 2, REST APIs, TypeScript, JavaScript, CSS, HTML**
- Built a full-stack app with Deno 2 and REST APIs to fetch metal prices and currency exchange rates.
- Designed a robust back-end with API error handling (fallbacks, 5-minute caching, async race-condition guards) and a multilingual front-end; the deployed static version averages **1,500 unique visits per month**.

Library Management System **C++, SQLite, Qt Widgets**
- Engineered a modular **C++/Qt Widgets** library management system with role-based access control and a layered architecture separating UI, service logic, and repositories, enabling loose coupling and extensibility.
- Implemented a local SQLite database and a Singleton-style repository manager to centralize data access and maintain consistent state for items, loans, and holds across sessions.

Image Blocker Extension **JavaScript, CSS, HTML, Manifest V3**
- Developed a Chrome extension that blocks images at both the **network** (declarativeNetRequest API) and **DOM levels** (MutationObserver) as a failsafe to remove matching images and CSS background-image assets.
- Designed a popup UI to manage a persistent blocklist stored in chrome.storage.local (add/remove/clear), validate inputs, and support JSON import/export; synced updates via runtime messaging to refresh rules in real time.

TECHNICAL SKILLS

Languages: C++, C, Python, Java, JavaScript, TypeScript, HTML5, CSS3, SQL, XML.
Frameworks: React, React Native, Flutter, Node.js, JavaFX, MongoDB, SQLite, Git, Linux, WordPress, Elementor.