

# Mohammad Al-Qasem

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## EDUCATION

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### Honors Bachelor of Science in Computer Science Specialist (Co-op), Information Systems Stream Sept 2021 - June 2026

University of Toronto - Scarborough

- U of T International Award Scholarship
- All coursework completed; degree conferral June 2026

### International Baccalaureate (IB) Diploma

Sept 2007 - May 2021

English Talents School - Amman, Jordan

- Top 0.5% of performers in the IB Diploma globally, achieving a 44/45
- Highest performer in the English Talents School graduating class of 2021

## TECHNICAL SKILLS

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**Languages:** JavaScript | TypeScript | Python | Java | C | C++ | Swift | Kotlin | SQL

**Markup & Styling:** HTML | CSS | Tailwind CSS

**Frameworks & Libraries:** React.js | Node.js | Express.js | Next.js | Recharts | JWT | bcrypt | JUnit

**Databases:** MongoDB | PostgreSQL

**APIs & Integrations:** REST | Twilio | Stripe | Five9 | MCP (Model Context Protocol)

**Tools & Platforms:** Git | GitHub | Docker | AWS | GCP | Jenkins | Jira | Confluence | Slack | Figma | Postman | npm

**Testing:** Selenium | Cypress | Appium | Cucumber | Gherkin

**Operating Systems:** macOS | Linux (Kali & Ubuntu) | Windows

## EXPERIENCE

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### Full-Stack Developer, Veta Virtual — Toronto, ON (Hybrid)

May 2025 - Present

- Built and maintained a **multi-tenant React + Node.js analytics platform** serving **100+ law-firm and SMB clients**, with personalized dashboards over **~20K calls/month** covering billing, call records, sentiment & tone analysis, AI summarization, transcription, and auto-QA — live data flows from each client's subscription start through the current day.
- Engineered an end-to-end **automated call-QA pipeline** — transcription, scoring against pass/fail criteria, and consolidated daily reports — replacing hours of manual review with same-day insight and producing per-agent performance portfolios used by ops leadership.
- Built styled **HTML QA performance reports** that rank struggling agents across five evaluation categories (CSFs, Accuracy, Engagement, Call Handling, Etiquette) for three color-coded teams, with consistent tie-handling logic in ranked tables — reviewed daily by the QA team.
- Led the **Five9 data migration** off per-client local syncs onto a single cloud-hosted Five9 syncer, then proxied access through an internal API for unified rate-limiting, observability, and simpler client onboarding.
- Built internal **MCP servers** powering an automated **payment pipeline** that auto-generates invoices and charges clients via stored payment profiles — keeping subscription, tax, and billing logic in-house and using Stripe purely as a payment processor, **cutting third-party platform fees** on advanced features.
- Designed an **AI Companion** that surfaces client-specific answers instantly from internal documentation, replacing slow manual lookups during live conversations and reducing time-to-response for inquiries.
- Engineered **Twilio SMS** integrations for client communications, including bulk message scheduling, queue management, and emergency cancellation flows for high-volume outbound operations.
- Architected an interactive **process visualization** for Veta's **Remote Talent** hiring product — a filterable journey diagram covering **9 stages** from lead capture through candidate placement — currently in production and used by clients for outsourced hiring.
- Translated **Figma mockups** into responsive, production React components; maintained the public marketing website and shipped ongoing front-end performance and UX improvements.

- Worked in **two-week agile sprints** with the Technical Architect and student interns: scoping, estimating, code review, and demos; jumped into **DevOps pipelines** and assisted with regression and end-to-end testing.
- Prototyped and integrated **AI-powered features** (transcription, sentiment, summarization, document Q&A) across the product while preserving the human-touch experience clients expect.

#### Exam Invigilator, University of Toronto Scarborough — Toronto, ON

Sept 2024 – Dec 2025

- Supervised **large-scale examinations**, ensuring compliance with university policies and academic integrity standards.
- Maintained **strict confidentiality** of student information and examination materials.
- Managed exam logistics, addressed disruptions, and enforced standardized testing conditions.

#### Residence Advisor, University of Toronto Scarborough — Toronto, ON

April 2024 – April 2025

- Provided on-call support for over **1,000 students**, responding to emergencies and residence concerns.
- Led **monthly house meetings** to address student needs and foster community engagement.
- Organized and hosted **events for 100+ students each month**, promoting student involvement and well-being.

#### QA Automation Engineer, theScore — Toronto, ON

January 2023 – September 2023

- Built and maintained **automated QA scripts** for theScore's **mobile app**, running on emulated devices against specific application versions to validate behavior on every release candidate.
- Authored **Jenkins-integrated smoke test suites** triggered on every pull-request merge, providing same-day regression coverage for an engineering team of **50+**.
- Used **Selenium** and **Appium** to maintain end-to-end test coverage across mobile flows; collaborated with engineers to triage failures and improve test stability.
- Logged, prioritized, and tracked defects in **Jira** with cross-functional discussion in **Slack**; reviewed pull requests on **GitHub** with feedback on testability and automation.

#### Frosh Group Leader, SCSU – University of Toronto Scarborough

August 2023 – Sept 2023

- Managed a group of 10 students alongside 2 other GLs, ensuring their safety and engagement throughout the 2-day frosh event.
- Built rapport with frosh students, driving high engagement across challenges and group activities.
- Coordinated with supervisors and MCs to keep all teams aligned and ensure smooth event flow.
- Delivered tasks accurately and promptly while maintaining a welcoming and inclusive environment for all attendees.

#### Frosh Logistical Leader, SCSU – University of Toronto Scarborough

August 2022 – Sept 2022

- Led a team of 15 logistical leaders alongside the lead LLs, ensuring safety, organization, and engagement across the 3-day frosh event.
- Coordinated daily with supervisors, fellow LLs, GLs, and MCs to align teams and ensure smooth event flow.
- Planned and coordinated catering distribution for Frosh, delivering a diverse menu accommodating various dietary preferences.

#### IISMUN Organizer, International Independent School (IIS) — Amman, Jordan

March 2020 – Dec 2020

- Grew conference attendance by **38%** over one academic year while coordinating a geographically dispersed team.
- Collaborated with the logistics team to transition seamlessly from in-person to online conference due to COVID-19, despite extreme time constraints.
- In under 60 days, developed and hosted the official Model UN website with **page redirection** and embed-code implementations while working in an **agile** environment.

## TECHNICAL PROJECTS

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#### Dotcoin – Blockchain-Based Cryptocurrency | [GitHub](#)

January 2025 – March 2025

- Developed a **UTXO-based blockchain** in **JavaScript** with strict one-time address usage for improved security.
- Designed a fraud-resistant **transaction validation system**, preventing double-spending and ensuring blockchain integrity.
- Implemented **proof-of-work mining** with **Keccak256** hashing and **Base58** encoding for block validation.
- Built a secure **BIP39-encrypted wallet** for safe key storage, balance checks, and transactions.

#### Pursuiter – AI-Powered Job Application Platform | [GitHub](#)

May 2024 – July 2024

- Developed a full-stack job application website using **MongoDB, Express.js, React.js, and Node.js** (MERN stack), ensuring seamless front-end and back-end integration.

- Engineered an **AI-driven applicant filtering system** to enhance employer hiring efficiency.
- Built a secure authentication system with **JWT** and **bcrypt**, ensuring safe user data handling and login sessions.
- Designed a responsive **UI/UX** with **CSS** and **HTML**, improving user experience across devices.
- Implemented **MongoDB indexing** to optimize query performance and scalability.

#### Yahoo Homepage Redesign | [GitHub](#)

January 2024 – March 2024

- Redesigned Yahoo's homepage to improve **usability, accessibility, and personalization** as part of a Human-Computer Interaction course.
- Created a high-fidelity prototype in **Figma**, incorporating accessibility options, customizable widgets, and an AI-powered search assistant.
- Conducted usability testing with a focus group, applying **Nielsen's 10 Heuristics** to gather feedback and refine the design.

#### GRAFFIT – C-Based Social Media Network | [GitHub](#)

July 2022 – August 2022

- Designed a social media platform in **C** capable of handling a network of **300+ users**.
- Developed **10+ functionalities** including friend suggestions, brand following, and mutual friend tracking using **graph networks**.
- Maintained readability and consistency between functions through ASCII sort order.
- Built deep understanding of **data structures, graphs**, and connections via **adjacency matrices, linked lists, and recursion**.

#### Special Number Operator | [GitHub](#)

September 2022 – October 2022

- Designed **abstract methods** for extensions, including the comparable interface, and inheritance for cleaner code design.
- Implemented **Object-Oriented programming** principles in **Java** with super-classes, sub-classes, and interfaces while maintaining **SOLID** principles.
- Imported **JUnit** library to conduct numerous tests using assertEquals.
- Handled invalid inputs by developing a unique exception type to ensure correctness of code.
- Generated HTML documentation describing exceptions, classes, and method functionalities.

#### Bike Share App | [GitHub](#)

October 2021 – November 2021

- Built a Python application using **dictionaries** as the primary data structure to track available bikes, stations, and IDs.
- Enabled real-time bike tracking and automated station updates as users rented and returned bikes.

### ADDITIONAL ACCOMPLISHMENTS

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- **President, Middle Eastern Students' Association** (2022–2023) — led student events and community-building initiatives across U of T Scarborough.
- Built a personal **IoT ecosystem** linking smart-home product APIs through a locally hosted **Homebridge** server, executing commands across devices.
- **Cybersecurity coursework** (lab demonstrations) — implemented controlled exercises in **AES decryption, SSL stripping, packet sniffing** with Scapy, **SQL injection**, a **TLS 1.3 protocol simulation**, **ARP poisoning / MITM**, an **XSS detection framework**, and **GPG key spoofing**; tooling included Nmap, Metasploit, OpenVAS, Wireshark, and Burp Suite.