

MOHAMED IBRAHIM

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[🌐 linkedin](#) | [🐙 github](#) | [📁 portfolio](#)

EDUCATION

University of Toronto

Honours Bachelor of Science

Specialist in Computer Science (Software Engineering Stream); Minor in Statistics | GPA: 3.5+

Toronto, Ontario

June 2028

WORK EXPERIENCE

Mozilla | Python, Rust, Django, Docker

Full-Stack Software Engineer Intern

September 2025 - August 2026

Toronto, Ontario

- Built a versioned pipeline that parsed targeting-context definitions from Firefox Desktop, Android, and iOS repositories, enabling platform-specific Experimenter validation and **eliminating a legacy CI test that added an average of 20 minutes** to affected pull requests.
- Led the rebuild of Experimenter's Results page with Django and HTMX, **cutting measured load times by more than 90%** and adding daily, weekly, and overall metric views for a platform used by **600+ internal users**.
- Corrected inconsistent enrollment-event telemetry in the Rust Nimbus SDK, aligning mobile and desktop reporting and **reducing miscategorized experiment alerts by approximately 30%**.
- Collaborated with the Nimbus team to **decouple rollout and experiment lifecycle models**, implementing a dedicated backend state machine and integration tests covering lifecycle transitions, validation, and rollout management workflows for **60 monthly rollouts** across Firefox products serving approximately 150 million users.

Marsatek | Java, Spring Boot, PostgreSQL, React, Docker

Software Developer

February 2025 - April 2025

Remote

- Developed a priority-based berth allocation algorithm in Java and Spring Boot that ranked vessels using multiple operational factors and assigned available berths to improve overall port efficiency, **reducing simulated vessel wait times by 15%**.
- Implemented **Spring Boot REST APIs supporting vessel scheduling and operational-data management**, connecting the React frontend to PostgreSQL-backed services with validation, persistence, and structured error handling.
- Created **CSV and Excel import/export workflows** with input validation, dynamic repository lookup, and reflection-based data mapping.

PROJECTS

PaperTrail [🔗](#) | Next.js, Supabase, Python, Gemini API, AWS App Runner, Amazon ECR

October 2025

- Built a Python receipt-ingestion pipeline supporting file and Gmail imports, OCR-based field extraction, duplicate detection, and automated folder classification, achieving **90% field-parsing accuracy** on a manually reviewed test set with an average processing time of **3 seconds per receipt**.
- Containerized the application with Docker, published images to Amazon ECR, and configured automated deployments to AWS App Runner through a CI/CD workflow.

Temp Tracker [🔗](#) | React, TypeScript, Next.js, Express.js, Supabase, PostgreSQL

June 2025 - August 2025

- Created a React and Express application for importing, storing, and visualizing **10,000+ environmental temperature readings**.
- Developed a bulk CSV ingestion pipeline with row-level validation and immediate error reporting, allowing users to upload hundreds of temperature readings in **under 30 seconds**.
- Designed a **data-driven Supabase badge system** supporting **15+ achievement types**, allowing badge criteria to be configured without application-code changes.

TECHNICAL SKILLS

Languages: Python, Rust, Java, JavaScript, TypeScript, SQL, C/C++

Frameworks: Django, Spring Boot, React, Next.js, Express.js, HTMX

Databases and Cloud: PostgreSQL, Supabase, Google Cloud, AWS (App Runner, ECR)

Tools and Testing: Docker, Git, GitHub Actions, JUnit, Mockito, Jest, Selenium, CircleCI