

# Rubaiz Momin

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## EDUCATION

### University of Toronto

September 2020 - April 2026

B.Sc Computer Science (Software Engineering Stream Co-op)

Toronto, CA

- **Coursework:** Software Engineering, Software Tools and Systems Programming, Software Design, Design and Analysis of Data Structures, Database Management Systems, Algorithm Design and Analysis, Web Programming, Computability and Computational Complexity, Computer Networks, Computer and Network Security, Artificial Intelligence, Engineering Large Software Systems.

## SKILLS

**Languages:** C#, JavaScript, Typescript, Java, Python, C, SQL, Liquid

**Databases:** SQL Server Management Studio, MySQL, PostgreSQL, Firebase, MongoDB, Supabase

**Development Frameworks/Libraries :** .NET Core, ASP.NET Core, Blazor, Entity Framework, ReactJS, ExpressJS, WebRTC, NestJS

**Testing Frameworks/Libraries :** Jest, MSTest, TestCafe, Playwright, Ranorex, unit, integration, end-to-end

**Developer Tools and OS:** Jenkins, Git, GitHub Actions, Bamboo, Kubernetes, Selenium, Docker, Azure, Linux, Unix

## EXPERIENCE

### Full Stack Developer (part-time)

May 2025 - December 2025

Shopiz

Toronto, CA

- **Engineered a cost-effective solution** to a budget challenge by **developing a custom Shopify integration** for order creation and invoicing, implementing access controls to safeguard sensitive data and reduce recurring subscription expenses by **\$6,000+ per year**.
- **Developed and secured backend services** with an Excel-to-database parser, implementing **role-based API access and HMAC authentication** to protect sensitive operations from unauthorised access and timing and replay attacks.
- Improved frontend by hiding live chat buttons based on working hours, sending different email templates based on payment methods on order confirmation.

### Software Developer Intern

January 2025 - April 2025

Kinaxis

Ottawa, CA

- **Resolved 40+ accessibility violations** across Maestro™ Workflows, ensuring compliance with a11y standards and maintaining coverage with Jest accessibility tests, raising overall accessibility scores from **poor to acceptable**.
- **Improved UI consistency and performance** by standardising reusable components and fixing logical issues in workflow activities, preventing invalid resource creation during import/export operations.

### Test Framework Developer Intern

September 2024 - December 2024

Kinaxis

Ottawa, CA

- **Designed a regex-based migration script** that converted **4,000 TestCafe** tests to Playwright, **automating 80% of manual effort** and reducing flaky test results.
- **Built robust test frameworks** for 30+ Maestro™ Workflow features, enabling stable end-to-end testing and increasing test reusability across components.
- **Authored 60+ reliable automated and unit tests** (TestCafe + MSTest) with **0% flakiness**, ensuring critical test coverage without over-execution.

### Platform Engineer Intern

January 2023 - April 2023

Seequent

Toronto, CA

- **Re-architected CI/CD pipelines by migrating 6 infrastructures** from Bamboo/VSphere to GitHub Actions + Azure, **reducing infrastructure costs by \$10,000 annually** and improving each test suite run time by **15%**.
- **Designed a GitHub Workflow Dashboard** for 20+ workflows pipelines, **providing near real-time visibility** into build/test status for engineering teams.
- **Optimized sign-in automation scripts** for licensed product authentication, **cutting 4–5 minutes per login** and eliminating cache dependencies.

- **Debugged 312 test automation failures**, reducing regression failure rate from **23% to 0%** in Oasis Montaj 2022.2.0.
- **Authored 73 new GUI test cases** in Ranorex and improved the reliability of complex gestures like drag and drop, resizing images, leading to **improving overall test coverage by 4%**.

## PROJECTS

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### Delta

*ASP.Net Core Blazor Webassembly, ASP.Net Core Web API, SSMS, Entity Framework*

- **Created an internal testing configuration tool** for Kinaxis that lets developers personalise targets from **250,000+ daily tests**, surfacing results in seconds.
- Implemented **local storage customisation** so developers could store unique configurations and filter test results based on relevance.
- Optimised database queries using **Entity Framework + SQL Server**, enabling efficient lookups across **millions of test records** spanning 25+ test types.

### Verboverse

*MERN, WebRTC, Google Translation API, Three-Tier Architecture*

- **Led a 3-member team** to develop a video/audio translation platform that supports **50+ languages** for real-time cross-language communication.
- **Designed backend peer connections** using WebRTC + MongoDB, supporting lengthy meetings, text channels and live translation delivery.
- Built and deployed a **RESTful API** for P2P connections, chat persistence, and email notifications, improving reliability and user experience.

### Github Actions Pipeline Dashboard

*ReactJS, ExpressJS, NodeJS, Github API*

- **Developed a centralised dashboard** for **520+ employees** to monitor workflow statuses across multiple repositories, eliminating the need to check GitHub manually.
- Enhanced UX with **real-time updates** (status, duration, last run) and integrated **workflow redirects** for faster debugging.
- **Generalised and documented the codebase**, enabling other teams to adapt the dashboard to their own CI/CD needs.

### Routing Algorithm Simulation

*Mininet, Python, NetworkX*

- Created a **routing simulation** to compare **Forward Search Algorithm (Dijkstra)** and **Distance Vector Algorithm (Bellman Ford)** on metrics like algorithm runtime, stabilisation time on link failures varying across different types of topologies.
- Developed the **link failure and recovery feature** which runs parallel to the simulation, seeing real-time behaviour of the network due to random link failures/recovery to study network stabilisation.
- Parsed mininet graph to translate to an adjacency list to run algorithms and parsed adjacency list back to miniEdit to change link states due to link failures/recovery.

### Orchestra - Bot Automation

*MERN, Electron, Sockets, IBM COS, Microservices*

- **Created a microservice-based workflow scheduler** that executes tasks based on dates and conditional predicates, enabling automated and flexible orchestration of processes.
- **Built an integrated Bot Store** within the application, allowing users to browse and download bots contributed by open-source developers, fostering community-driven extensibility
- **Problem solved the execution integrity** in case of system crash while executing bot scripts, **ensuring consistent state and quick recovery** using a high level of journaling.

## OPEN SOURCE CONTRIBUTION

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### Apache Superset (Ongoing)

**Pull Request-36778**

*React, Typescript, dnd-kit, react-dnd*

- **Migrate react-dnd react-based components to dnd-kit** due to deprecation of react-dnd and improved performance of drag and drop in dnd-kit.