

# Royce Mathew

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## Skills

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**Languages** Python, Java, JavaScript, SQL, Rust, Assembly, C++ / C# / C, Lua

**Technologies** Artifactory, Bash, Docker, Firebase, Flask, Google Cloud, Git, Jenkins, Linux, Maven, MsSQL, Numpy, OpenShift, Pandas, Postgres, PyTorch, Raspberry Pi, React, REST, SASS, Selenium, SSH, Tensorflow, UML, Vercel

## Experience

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**Cloud Developer** • RBC Royal Bank of Canada

Jan 2024 - Aug 2024

- Developed and managed an internal application using **Next.js** and **TypeScript** and **Microsoft SQL** to handle large scale batch reads, writes, and data views.
- Independently implemented authentication and role based access control using **Microsoft Entra ID (Azure AD)**, dynamically linking user access to **ServiceNow** tickets for secure login workflows.
- Built a scalable cloud architecture, enabling horizontal **auto-scaling**, **load balancing**, and **containerization** using **Docker** and deployed on **Red Hat OpenShift**.
- Developed a robust **CI/CD pipeline** using **Jenkins**, integrating:
  - **HashiCorp Vault** for secure secrets management
  - **SonarQube** for continuous code quality analysis and static vulnerability scanning
  - **Artifactory** as a repository for managing versioned build artifacts and Docker images
  - **Automated unit tests** with **Generative AI** and deployment workflows to production

**Teaching Assistant** • Ontario Tech University

Sep 2023 - Dec 2024

- Offered individualized support to students through office hours, addressing their questions and concerns related to course content, assignments, and projects.
- Supported the integration of new technologies and tools into the course, such as cloud computing platforms and development environments, to enhance the learning experience.
- Mentored and guided students in their project work, helping them develop practical coding skills and complete software projects that demonstrate their understanding of course concepts.

**Technical Operations Intern** • Modern Deploy Technology

May 2023 - Sep 2023

- Developed a web application leveraging cloud storage, allowing users to effortlessly upload, manage, and access documentation securely with a secure authentication system.
- Created a responsive user interface using **Svelte** and **TypeScript**, ensuring an intuitive and dynamic user experience.
- Implemented Supabase, a **Postgres** database, along with **Vercel**, as a key component of the project, showcasing efficient data management and seamless integration.

## Projects

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r0yce.com/projects

### Kanjou - Cloud Powered Collaborative Editor      Firebase • NextJs • React • Typescript

- Kanjou is a **real-time collaborative text editor** built with **Next.js** and **Firebase**, featuring live document sharing, syntax highlighting, and auto-save. The tool has an array of features designed to enhance user experience and productivity.
- Seamless Integration for syntax highlighting for improved code readability, an **automatic saving** mechanism to prevent data loss, and a comprehensive suite of shortcuts to expedite workflow. Moreover, the platform facilitates real-time collaboration by allowing users to share documents and edit them concurrently.

### Forex Trading Bot for Market Prediction      Python • Pandas • NumPy • REST APIs

- Engineered a real-time trading bot that analyzes high frequency forex market data and generates trade recommendations through **statistical analysis** and **pattern recognition**.
- Currently integrating a machine learning model to enhance predictive performance using custom-engineered features derived from volatility, price action, and trend reversal signals.

### Open Source API Wrapper      Rust • Asynchronous • Github Actions

- Asynchronous Rust API Wrapper for Roblox endpoints - **rust library** that prioritizes memory safety and sends requests to web endpoints, while also allowing for cookie-based authorization.
- The wrapper seamlessly integrates users, groups, games and payment services into Rust-compatible formats with **deserialization** for easy access and manipulation. This wrapper was originally written to be implemented into my backend server running on RaspberryPi.

## Education

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**Ontario Tech University**

*Sep 2021 - Dec 2025*

**Bachelors Of Science - Computer Science**

- Dean's Honors List 2022   • President's Honors List 2022
- Data Structures and Algorithms, Computer Architecture, Computational Photography, Software Design and Analysis, Computational Science, Programming Languages, Software Systems Development and Integration