

Ziven Rokhit

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EDUCATION

University of Waterloo

Sept 2022 - Apr 2027

Bachelor of Mathematics with a Minor in Computer Science

Waterloo, ON

- Relevant Courses – Data Structures & Algorithms, Object-Oriented Programming, Proofs

EXPERIENCE

Software Engineer Intern

Sept 2024 – Dec 2024

Ford Motor Company

Dearborn, MI

- Led on-call production support for **FordPro.com**, leveraging **Datadog**, **GCP**, and **Tekton** to monitor cloud infrastructure and ensure maximum uptime for **55,000+** daily users.
- Developed a system using **TypeScript** and **React** to facilitate data privacy settings updates for over **250+** Ford Fleet Managers across Europe and North America.
- Performed real-time cache invalidation for **10K+** entries using **JavaScript** to synchronize **Redis** cache.

Software Architect & Engineer

Jan 2024 – Present

CourseClutch.com

Toronto, ON

- Developed and deployed a **RESTful API** using **Python**, **FastAPI**, and **AWS Lambda** serverless functions, optimizing it for scalability and handling **40K+** users with reduced infrastructure costs.
- Designed a NoSQL database using **DynamoDB**, containerized cron jobs with **Docker**, and orchestrated the system with **AWS EventBridge**, resulting in a **33%** reduction in customer wait times.
- Integrated **Stripe API** to embed a secure payment system within a **React** frontend, ensuring safe transactions.

Software Engineer Intern

Jan 2024 – Apr 2024

TD Bank Group

Toronto, ON

- Developed client onboarding software used by **20,000+** customers daily, built with **Java**, **Spring** and **React**, integrating with over **150** enterprise APIs and microservices, creating a seamless customer experience.
- Automated a tedious deployment process using **Bash scripts**, integrating with **CI/CD** pipelines on Azure, reducing team deployment time by **3** hours per week.
- Engineered a webpack caching system with the **Spring Framework** and **Craco** to asynchronously update customer app versions, leading to a **15%** improvement in client satisfaction rates.

Fullstack Engineer Intern

May 2023 – Sept 2023

Doctalk Inc

Toronto, ON

- Developed an ad rotation system using **TypeScript** and **React**, boosting on-site advertisement views by **300%**.
- Migrated the production database using a **Python ETL script**, achieving a **25%** reduction in memory usage.
- Crafted **10+** custom **React** components to common SDK, simplifying codebase, reducing compilation time and improving maintainability.

PROJECTS

Toronto Crime Forecasting Model | Python, Pandas, Scikit-learn, ArcGIS

- Collected, cleaned, and encoded 300,000 raw data points using **Pandas**, creating a structured dataset ready for analysis. Experimented with fitting various machine learning models to evaluate their performance.
- Developed an interactive spatial map using **Python** to visualize data and identify key patterns and trends.

RSA Encryption Website | Python, Flask, Cryptography, HTML/CSS

- Engineered a secure API utilizing **Python** and **Flask**, featuring a custom RSA-2048 encryption algorithm developed in collaboration with University of Waterloo mathematics professors.

Chess Engine | C++, Makefile

- Created a **C++** Chess Engine featuring a CPU opponent and integrated computer graphics.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, Java, C/C++, HTML/CSS, SQL

Frameworks: React, Express, Next.js, FastAPI, Flask, Pandas, Datadog, Spring/Spring Boot

Developer Tools: AWS, Docker, Node.js, Tekton, Redis, PostgreSQL, GCP, Linux, Bash, Postman