

Dhruvin Balar

Bachelor of Software Engineering, University of Waterloo

dhruvinbalar7@gmail.com • [LinkedIn](#) • dhruvinbalar.com

SKILLS AND TECHNOLOGIES

- **Languages:** C++, Java, JavaScript, Python, C, C#, SQL
- **Frameworks:** NodeJS, NextJS, Spring, Tornado, ReactJS, ExpressJS, .NET Core, Apache Spark
- **Technologies:** AWS, PySpark, Kafka, Kubernetes, GCP, Docker, Postgres, Git, MS SQL Server

WORK EXPERIENCE

Amazon

Aug 2022 – Apr 2024

Software Developer Engineer

Vancouver, BC

- Implemented CVV Rate Limiting feature in **React** and **NodeJS**, enhancing security and user interaction. Expected to eliminate **100%** of registration-related fraud, improve site reliability, and bolster customer trust by preventing DDoS type attacks.
- Achieved **94%** reduction in deployment time by implementing **AWS SAM CLI** and **Docker** sandbox testing, resulting in enhanced deployment speed, accelerated testing cycles, and improved productivity by detecting issues earlier.
- Redesigned and implemented a card registration form in TypeScript, achieving **100%** test coverage, which led to identifying and resolving **50%** more bugs.
- Resolved a critical bottom sheet resizing issue in **React**, solving **100%** of customer tickets related to the issue, significantly improving customer experience.
- Developed a failure page with **NextJS/TypeScript** featuring custom frontend localization, achieving zero beta phase issues and reducing bounce rates by **15%**.
- Enhanced query performance by **40%** and bolstered security by spearheading a seamless **PostgreSQL** migration on **AWS RDS**, achieving zero downtime and maintaining uninterrupted service without customer impact.

Ultimate Kronos Group (UKG)

Aug 2021 — Dec 2021

Software Developer (Co-op)

Toronto, ON

- Implemented efficient event handling across microservices by leveraging **Kafka events** and polymorphic behavior of **Java classes**.
- Designed and implemented **integration tests** to ensure reliable functioning of business-critical user flows by testing endpoints on a subdomain level between services.

Ultimate Kronos Group (UKG)

Jan 2021 — Apr 2021

Software Developer (Co-op)

Toronto, ON

- Improved development efficiency and productivity by transitioning service discovery from Eureka to **Kubernetes**, enabling local simulation of the production environment and scripting mock deployments of core services using the Spring Boot framework.

Tealbook Inc.

May 2020 — Aug 2020

Software Developer (Co-op)

Toronto, ON

- Multi-threaded a **JavaScript** file loader API, boosting overall performance by **125%**.
- Implemented a staging environment on **GCP** using **NodeJS** and designed APIs for **BigQuery** to carry out actions on staging data, resulting in a **90% decrease in processing time** for clients.

NOVX Systems Corp.

Sep 2019 — Dec 2019

Software Developer (Co-op)

Toronto, ON

- Designed, developed, and deployed a secure **MS SQL** database system, including libraries and APIs in **C#**, for managing a multilevel hierarchy of users and handling confidential data.
- Performed data validation and used relationships and indexes in the database to achieve higher performance in data queries in **Entity Framework**.

EDUCATION

University of Waterloo

2017-2022

Bachelor of Software Engineering - BSE, Software Engineering

Waterloo, ON

- *Graduated with Distinction - Dean's Honours List*
- Relevant Coursework: Data-Intensive Distributed Computing, Database Management, Software Architecture and Design

PROJECTS

- **Blueprint CDC:** Engineered a 3D VR interactive web application for designing and editing virtual escape rooms using **Python**, **React**, **A-Frame** and **Postgres**, deployed on AWS leveraging **EC2**, **S3**, and **RDS**. The prototype **won Hack the North 2021**.
- **Tetris AI:** Coded a Tetris game in **C++** with X11 graphics using MVC design pattern. Used first principles of **reinforced learning** to build a self-playing **Tetris AI**.