

# Kanwarpal Brar

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## SKILLS

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**Programming:** C++, C#, C, Python, TypeScript, JavaScript, Java, Kotlin, HTML + CSS, SQL, SCSS

**Knowledge:** Microservices, REST APIs, Object-Oriented Programming, Multi-Threading, CI/CD, Distributed Systems

**Technologies:** Azure, AWS, Git, Node.js, React, Vue.js, Nest.js, Docker, Kafka, Flask, Command Line, Selenium, Linux

## WORK EXPERIENCE

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### Full Stack Software Developer

Sept – Dec 2022

(Genesys Laboratories)

Markham, ON

- Demonstrated exceptional skill with **AWS** technologies such as **CloudFormation**, **DynamoDB**, **Lambda**, **EC2**, **SNS**, and **SQS**
- Developed **Event-Driven** Microservices using **Apache Kafka**
- Built elegant **REST APIs** using **Python & Flask**
- Designed attractive and user-friendly UI with **Vue.js**
- Developed robust microservices for a massive web platform based on **AWS** using **Python**, **Java**, and **Kotlin** to provide functionality to **hundreds of thousands** of users internationally

### Software Engineering Intern

Jan – Apr 2022

(Creospark/Cloudspark Labs)

Toronto, ON

- Designed and developed scalable **RESTful** and **Event-Driven microservices** for web apps leveraging Microsoft **Azure**
- Implemented numerous core microservices in **TypeScript** using **Nest.JS**, **CosmosDB**, and Microsoft **Graph** to add features
- Independently led design and development of claims-based **authorization**, **licensing**, and **notification** systems

### DevOps Specialist

May – Aug 2021

(Pillar To Post)

Toronto, ON

- Designed and Developed an **Automated** Web Software Testing Framework in **Selenium** using **Python** and **JavaScript**
- Saved hundreds of company hours by automating regression testing suite and eliminating manual testing

## PROJECTS

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### Simple-Event-Bus: Lightweight Event Streaming

2023

(C++ / Boost.ASIO)

- A flexible C++ **event bus/event streaming** software designed to provide functionality similar to **Apache Kafka**
- Employed a **publish-subscribe** pattern to allow **real-time** event-based communication
- Designed support for multiple different event types and formats
- Developed using **asynchronous** programming and **Boost.ASIO** to efficiently execute **TCP** operations with low overhead

### Loo Locator: Washroom Location Map

2022

(Python / React / Typescript / AWS / Nest.js / Mapbox)

- Developed a mobile web app using a **React** frontend, as well as a **TypeScript & Nest.js** backend hosted on **AWS**
- Implemented a Python **web scraper** to search for public washroom datasets across Canada
- Uses the **Mapbox API** to provide a real time map of nearby facilities

### Hive: Machine Learning Data Collection

2021

(Python / Django / HTML / CSS / JS)

- Developed a web platform using **Django** for streamlined collection of Machine-Learning Data
- Employed use of the Dropbase pipeline **REST API & Firebase**
- Achieved a spotlight on Dropbase's corporate blog for unique usage of API

## EDUCATION

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**Bachelor of Computer Science**, University of Waterloo

2020 – Present

**Relevant Courses:** Data Structures, Algorithms, Operating Systems, Object-Oriented Programming