Harsohail Brar

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EDUCATION

University of Calgary   Calgary, AB
Bachelor of Science in Software Engineering   *Sep. 2017 – May 2023*

University of Calgary   Calgary, AB
Bachelor of Commerce in Finance   *Sep. 2017 – May 2023*

TECHNICAL SKILLS

Languages: **Expert:** Python, Ruby, TypeScript, JavaScript **Proficient:** Java, SQL **Prior-Experience:** C++
Technologies: React, Redux, GraphQL, Ruby on Rails, Node.js, Flask, FastAPI, PostgreSQL, MongoDB, Docker, AWS

EXPERIENCE

Software Engineer Intern   May 2022 - Sep. 2022
Modern Treasury   *San Francisco, CA*

- Built a **Ruby on Rails GraphQL** API to calculate ACH payment return rates to power a **React + TypeScript** dashboard on the web app to keep customers in compliance of the national clearing house's guidelines.
- Developed the underlying **SQL** query to analyze and compute return rates of over **7 million** payment orders.
- Implemented a time-series caching algorithm in **Ruby** to cache queried data in **Redis** so subsequent requests can patch cached and queried data together for faster response times.

Software Development Co-op Student   Sep. 2020 – Aug. 2021
Cenovus Energy   *Calgary, AB*

- Developed an end-to-end project delivery web application using **ReactJS** and **Microsoft's SharePoint REST API** for designing and monitoring project models across business units.
- Constructed automated builds, deployments, and dependency caching for the application in **GitHub Actions CI/CD** with **bash** and **YAML** to reduce deployment times by **over 50%**.
- Selected as **one of 10 interns out of 250** to present the project to the **CEO** and **COO** of the company and show the business value added.

PROJECTS

FakerJS Color Module | *Contributor*   Open Source

- Led the color module development of the widely used FakerJS library (**1.3 million+** monthly downloads) with their open source team.
- The API allows for extensive generation of fake color data for various color formats, gamuts, and style sheet languages.
- Wrote unit tests for the module using **Vitest** and the feature was deployed into production in May 2022.

Ruby for Good CASA | *Technical Lead*   Charity Project

- Developed a **Twilio** SMS integration with the volunteering management platform to automate communication with users using **Ruby on Rails** and the **Twilio SDK**.
- Thoroughly tested the SMS services using **RSpec** and implemented front-end feature tests with **Capybara**.

EXTRACURRICULAR

Code The Change YYC | *Co-President*   Sep. 2021 – May 2023

- On the leadership team of a student-led initiative where students in technology-focused programs volunteer their time to work on community projects.
- Responsibilities include **organizing major events** such as hackathons, **finding potential sponsors and projects**, and **gathering software requirements** for the organization's developers in Jira.

Jambo Apparel | *Technical Lead*   Charity Project

- Developed a proprietary e-commerce store for the non-profit organization Jambo Apparel to lower operating costs incurred by platforms such as Shopify.
- **ReactJS** and **Redux** were used for front-end development, **Express.js** as an authentication middleware, **Stripe** for managing payments, **FaunaDB** as the database, and **PrintifyAPI** for supplier and shipping data.