

# Gagan Raj Singh

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## SKILLS

- **Programming** : TypeScript, JavaScript, C#, Python, SQL, C/C++
- **Web Development** : React, NodeJS, Express, .NET, Redux, REST APIs, Entity Framework, SQL Server
- **Miscellaneous** : Data Structures, Algorithms, Azure, AWS Lambda, API Gateway, Git, Azure, Agile

## WORK EXPERIENCE

### BGC Engineering

Jan 2024 - Present

Software Development Co-op

Vancouver, BC

- Developed a **Real-Time** streamflow monitoring system using **Azure Function App**, **Service Bus** and **Python**, enhancing response time and flood status monitoring for pipeline sites.
- Enhanced site safety by creating an Inspections monitoring dashboard with geo-spatial widget components, global filtering and sorting features using **ReactJS**, **TypeScript**, and **C#**, used by **1000+** engineers.
- Reduced developers' workload by about **20 hours per sprint** by developing **REST APIs** and designing **DB Schema** for an admin console which enabled admins to directly manage client features and map layer configurations.
- Achieved an **80% reduction in time** spent accessing esri layer metadata by implementing a metadata popup feature utilizing **React**, **REST APIs**, and **Redux**, improving user experience.
- **Technologies** - React, TypeScript, .NET, C#, Redux, Jest, Azure, SQL, Git, Agile

### Accountium

May 2023 - Dec 2023

Software Development Co-op

Vancouver, BC (Remote)

- Facilitated business growth by onboarding **6 international clients** by developing a **Generic Tax System**, involving development of new **DB tables**, **Controllers** and **React** frontend, enabling seamless integration of global clients.
- **Achieved 20% reduction** in client project delays by developing a Project Management feature, incorporating **Frontend**, **API development** and **DB modeling** using **ReactJS**, **C#**, which simplified progress tracking and invoice generation.
- Developed a Work Scheduling feature, **benefiting 50+ clients** by enabling them to create employee schedules, monitor work hours, and validate locations, by developing Stored Procedures, **REST APIs**, and designing database.
- Optimized the frontend of Accountium web application using **ReactJS**, **JavaScript**, **CSS** enhancing the UX and making it fully compatible across multiple browsers and mobile devices.
- **Technologies** - React, JavaScript, C#, .NET Core, MVC, REST APIs, SQL, Git, Agile

### University of Alberta

Jan 2023 - April 2023

Graduate Research Assistant

Edmonton, AB

- Refined the client acquisition process of an executive search firm, by developing ML models to predict lead success rate.
- **Technologies** - Python, Pandas, PyCaret, Scikit-Learn.

### Deloitte

Aug 2020 - Aug 2022

Software Developer

Gurgaon, India

- Ramped up the **user acquisition rate from 9% to 15%** for a supermarket chain, by developing new user onboarding websites using **ReactJS**, **NodeJS** and **ExpressJS**, resulting in a significant increase in revenue.
- Enhanced website security by implementing Single Sign-On (**SSO**) and email-based Multi-Factor Authentication (**MFA**) using **REST APIs**, mitigating potential security risks.
- Led the successful migration of **4.5 million records** to a new database by developing the entire migration pipeline using **Python** and **Azure Function Apps**, ensuring data integrity and minimal disruption to operations.
- **Technologies** - React, Python, NodeJS, ExpressJS, Jest, JavaScript, Azure DevOps, SQL, REST APIs, Git, Agile

## PROJECTS

### Talk-2-PDFs

[Demo](#) | [Link](#)

- A web application that transforms PDFs into interactive chatbots. Developed this project primarily to help students to efficiently comprehend research papers in a shorter span of time. Also versatile in handling any other PDF document.
- **Technologies** - React, Python, TypeScript, LangChain, OpenAI, Flask, Redux, Git.

### NFT Marketplace

[Demo](#) | [Link](#)

- Developed a web application, allowing users to generate AI images using textual prompts and mint them as NFT on blockchain. It enables users to generate, buy, sell and track the NFT ownership and its market value.
- **Technologies** - React, NodeJS, EtherJS, Solidity, OpenAI DALL-E 2, IPFS, Git.

## EDUCATION

### University of Alberta

Sep 2022 – Present

Master of Science in Computing Science

Edmonton, AB

### Panjab University

July 2016 – May 2020

Bachelor of Engineering in Computer Science

India