# Tanish Shah

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# **EDUCATION**

#### Simon Fraser University

Burnaby, BC

Bachelor of Science in Data Science

Estimated Graduation: May. 2025

## Work Experience

## Junior Web Developer Co-op

Jan 2023 – Apr 2023

Health Canada

Remote

- Migrated a legacy JavaScript application to TypeScript, resulting in improved code readability and maintainability, as well as better error handling and debugging capabilities
- Developed a new dashboard application using NextJS, SPARQL and RabbitMQ which effectively manages employee permissions within the company hierarchy.
- Wrote comprehensive tests using the Jest library to ensure the functionality of UI components, with relation to state manipulation and API requests with 95% code coverage
- Collaborated with the business team to create high-quality Elastic UI React components based on 100% of the design specifications

# **Backend Software Developer**

Aug 2022 – Oct 2022

 $eWorx\ Technology$ 

Remote

- Developed a Python-based microservice which serves as a query engine that filters a dataset, based on an SQL-like JSON input format
- Implemented selection, filter conditions, group-by and aggregation functions and common regex patterns using pandas and numpy
- Deployed the query engine onto a Django REST API, and wrote intuitive documentation of the endpoint using Swagger

#### Projects

Dexbooru | TypeScript, Sveltekit, Tailwind, Postgres, Redis, Firestore, Prisma

Dec 2022 - Apr 2023

- Created an anime image board that allows users to create posts, comment on posts, and friend other users in the community
- Implemented cookie-based session authentication to protect designated page routes
- Handled CRUD operations with the Prisma ORM on a Postgres database
- Built a scalable chatting feature using Firestore that can handle a 50/50 read-to-write ratio
- Optimized site load times by 75% by reducing image sizes with WebP and adding caching layers with Redis

#### **Anime Recommender** | TypeScript, Python, React, FastAPI, nltk, pandas

Dec 2022 - Dec 2022

- Created an anime recommendation engine that outputs up to 10 shows, based on genres, ratings and synopses
- $\bullet$  Tokenized and lemmatized 17,500 rows of synopses from a pandas data frame
- Developed a matching algorithm that compared user inputs to the show's synopsis, based on matching tokens and synonyms with the WordNet database, resulting in highly relevant and accurate recommendations
- Deployed the prediction algorithm onto a FastAPI endpoint, and created a single-page React app using Material UI components to consume user inputs from a form and send requests to the server to retrieve relevant JSON data

# UniMeetups @ Calgary Hacks | Python, HTML/CSS, Flask, MongoDB

Feb 2022 – Feb 2022

- Created a social meetup app that allows Canadian post-secondary students to connect with other students, based on interests and courses
- Built a REST API that handles user, friendships and meetup event CRUD operations in MongoDB collections
- Leveraged Google Maps API to calculate physical distances between users and group them by location
- Styled HTML Jinja templates with Bootstrap components

## TECHNICAL SKILLS

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

Frameworks: React, NextJS, Sveltekit, RabbitMQ Databases: MongoDB, PostgreSQL, Redis, Firestore

Libraries: Flask, FastAPI, Express, Prisma, Tailwind, pandas, NumPy, matplotlib

Developer Tools: Git, VS Code, IntelliJ, PyCharm