Haocheng Fan

236-513-0760 | hfan05@student.ubc.ca | Github | Linkedin

Technical Skills

Languages: TypeScript, JavaScript, Java, C++, Python
Developer tools: Visual Studio Code, IntelliJ, MatLab, Convex, Git, Railways
Technologies: Html, CSS, React, Node.js, SQL, Django, Bootstrap, Tailwind, Redis, Docker, AWS

Technical projects

Personal-Portfolio Feb-Present 2025

- Built a full-stack portfolio website using **React, TypeScript, and CSS** for a dynamic UI.
- Implemented project management features with a special admin mode, enabling CRUD operations through **RESTful API**.
- Initialized **Railway** for backend hosting and **MySQL** for database storage, maintaining structured project information.
- Deployed the website on **AWS S3**, integrating **CI/CD** pipelines to automate the deployment directly from GitHub.

AI interview coach (Easy Hack Hackathon) March 15-16 2025

- Built an AI-powered interview simulation using **React, TypeScript, and Tailwind**, featuring a dynamic and interactive UI.
- Integrated OpenAI's GPT-4 & **Text-to-Speech API** with **Web Speech API**, enabling AI-generated spoken questions and real-time voice interaction
- Utilized **AWS S3** for secure resume storage, replacing local file storage for scalability & reliability.
- Extracted job description & resume content using **React-PDF** and stored text data for AI-powered, contextual interview questions.

JobMatcher (Build with AI hackathon) March 1st 2025

- Developed an AI-powered job application automation platform using **React, TypeScript, and Tailwind**, creating a modern, responsive UI for job seekers.
- Built an AI-driven job matching system with **Node.js** for backend logic and **Next.js API Routes** for serverless data processing, enabling real-time job recommendations.
- Used **PostgreSQL** as the database to store job listings, user profiles, resumes, and application statuses, ensuring structured and scalable data management.
- Integrated **Gumloop workflow** to extract structured text from PDF resumes and job descriptions, automating content parsing.

UBC Campus Explorer Sep-Dec 2024

- Developed a backend query system to process and retrieve room information using **Node.js and TypeScript**, enabling structured data access.
- Designed and implemented **black-box tests and unit tests** for validating dataset queries and ensuring robust backend functionality.
- Built a RESTful API with **Express.js** to handle requests for room coordinates, integrating with the frontend for real-time data retrieval.

- Developed an interactive map web app using **React, Google Maps API, and Next.js**, allowing users to visualize campus locations dynamically.

Medical Diagnostic AI Platform (UBC CIC Hackathon) Oct 5th 2024

- Integrated **Flutter** for a user-friendly mobile application, allowing patients to input symptoms and receive AI-generated medical insights.
- Implemented secure authentication using **AWS Cognito** and User Pools, ensuring data privacy and HIPAA compliance.
- Designed a scalable serverless backend using **API Gateway, AWS Lambda, and Bedrock**, enabling AI-powered symptom analysis and diagnosis.

Astronomy Simulator (academic) May-Aug 2024

- Designed and implemented the **ER Diagram** for database schema and used **Oracle** to set up the database.
- Developed **APIs** for CRUD operations (insert, delete, update) and used a router as the middleware to connect the backend with the frontend.
- Built the frontend using **JavaScript, HTML, and CSS**, ensuring dynamic functionality and styling for the simulation.
- Connected the application to the **Oracle database** using environment variables (`.env`) to secure the database credentials.

Flash Card Application (academic) Jan-Feb 2024

- Developed a Flash Card Application using **JavaFX** for creating the graphical user interface (GUI).
- Applied **JUnit** testing framework to create comprehensive unit tests ensuring code reliability and correctness.
- Utilized **Object-Oriented Design (OOD)** principles to structure the project files, promoting clean architecture and maintainability.

Education

Langara College Vancouver, BC
University transfer program *GPA: 3.56 Jan/2022 - Aug/2023*

- Honors: Dean's Honour Roll
- Relevant coursework, Program Design, Algorithms and Data Structures, Operating Systems, Unix Tools and Scripting

The University Of British Columbia Vancouver, BC
Major in Computer Science Combined Mathematics *GPA 3.85 Sep/2023 - May/2026*

- Relevant coursework, Software Construc4tion, Introduction to Relational Databases, Applied Linear Algebra, Calculus, Elementary Statistics for Applications