

Matt Tsai

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SKILLS

Programming Languages: C/C++, Java, Python, JavaScript, TypeScript

Web Development: Node.js, React, Express JS, Spring Boot, HTML, CSS, EJS

Database Management: SQL, PostgreSQL, MongoDB

DevOps: Git, Docker, GitHub CI/CD, GitHub Actions, AWS, Maven

System Administration: Linux, WebLogic, Oracle SOA suite, WildFly, JBoss, GlassFish, Glowroot

EXPERIENCE

Expo-Growth Marketing Corp.

Dec 2023 – Present

Software Engineer

Vancouver, BC, Canada

- Remodeled an advanced AI-powered customer service system using **Python** with **Object Oriented Design**.
- Developed a **LLM multi-assistant** system in **Python**, boosting 55% SOP setup accuracy.
- Automated **Docker** setup, accelerating deployment on client virtual private servers by 65%.
- Deployed **AWS S3** Backup and Restore Functionality, enhancing data security and disaster recovery measures.
- Utilized **Prometheus** for system metric monitoring and **Grafana** for intuitive dashboard visualization.
- Integrated Shopify and Gmail API to streamline responses and information for Backend service.

BC Liquor Distribution Branch

May 2022 – Dec 2022

Database/Middleware Admin Co-op

Burnaby, BC, Canada

- Transitioned **JBoss** services to **WildFly** with varied teams, resulting in an annual cost reduction of 15%.
- Configured **RWP*Load Simulator** to accurately simulate real-world workloads on an Oracle database.
- Automated log file management with **Linux** scripts, schedule to delete outdated logs to optimize server storage.
- Managed and optimized multiple application components in **middleware and database**.

TECHNICAL PROJECTS

Hope Health Action - Haiti Hospital (Non-profit) | [Q](https://github.com)

- Developed a report platform for Haiti hospitals using **React**, **Express**, **Typescript**, **Node.js**, and **MongoDB**.
- Implemented **Fluent Bit** in **Docker** containers for efficient logging to **AWS CloudWatch**.
- Optimized **CI/CD pipelines** by migrating to Docker with Node.js 18, improved build and deployment processes.

Pomodoro Pals | [Q](https://github.com)

- Engineered a serverless Pomodoro web app with customizable timers and rewards, boosting user productivity.
- Implemented frontend using **Next.js** and created **CI/CD pipeline** to automate deployment to **AWS Amplify**.
- Built a secure authentication with **AWS Cognito** and user data protection in **DynamoDB**.
- Operated resilient, scalable serverless microservices using **AWS Lambda** and **API Gateway**.

Security Camera System | [Q](https://github.com)

- Designed a security full-stack and embedded system with motion-triggered recording and live streaming feature.
- Employed a sensor, web cam integration using Beaglebone with **C** to capture audio, video, and motion data.
- Developed the frontend in **React** and backend in **Node.js** for **UDP** protocol ensure live data synchronization.

Course Planner | [Q](https://github.com)

- Designed a student-centric web application for course searches using **Java** and **Spring Boot**.
- Enhanced data scalability by integrating a **RESTful API** for course information.
- Instituted a course watcher with the observer pattern to alert students about new openings.

LEADERSHIP EXPERIENCE

SFU Taiwanese Association

Jun 2021 – Aug 2023

Fronted Developer and Vice President of Marketing

Burnaby, BC, Canada

- Built a digital membership card for phone wallet in **React**, Pass2U using **AWS**, achieving a 56% revenue boost.

EDUCATION

Simon Fraser University

Bachelor of Science in Computing Science

Burnaby, BC, Canada

Sep 2020 – Dec 2024 (Expected)