

# Matt Tsai

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## SKILLS

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**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

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**Expo-Growth Marketing Corp.** Dec 2023 – Present  
*Software Engineer* Vancouver, BC, Canada

- Remodeled an advanced AI-powered customer service system using **Python**, resulting in a 95% accuracy.
- Automated **Docker** setup, accelerating deployment on client virtual private servers by 65%.
- Developed a multi-assistant system with OpenAI API, boosting 55% SOP setup accuracy.
- Integrated Shopify API and Gmail API to streamline customer service responses and information.

**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.
- Managed and optimized multiple application components in **middleware and database**.

## TECHNICAL PROJECTS

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**Hope Health Action - Haiti Hospital (Non-profit) | Q**

- 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**.
- Deployed **AWS S3** Backup and Restore Functionality, enhancing data security and disaster recovery measures.

**Pomodoro Pals | Q**

- 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**

- 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.

**Tan Compiler | Q**

- Using **Java** to build a custom compiler supporting variable key features.
- Implemented primitive types, compound types, branching, loops, type promotion and function calls.
- Applied Agile principles by using test-driven development for every iteration of the language specification.

**Course Planner | Q**

- 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.

## EDUCATION

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**Simon Fraser University** Burnaby, BC, Canada  
*Bachelor of Science in Computing Science* Sep 2020 – Dec 2024 (Expected)