Matt Tsai

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SKILLS

Programming Languages: C/C++, Java, Python, JavaScript, TypeScript
Web Development: Node.js, React, Express JS, Spring Boot, REST API, HTML, CSS, EJS
Database Management: SQL, PostgreSQL, MongoDB
DevOps & System Administration: Git, Docker, GitHub CI/CD, GitHub Actions, AWS, Maven, Linux, WebLogic, Oracle SOA suite, WildFly, JBoss, GlassFish, Glowroot
Data Science & Analysis: NumPy, Pandas, Apache Spark, Matplotlib, Seaborn

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- Automated log file management with **Linux** scripts, schedule to delete outdated logs to optimize server storage.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

H&M Recommendation Engine | O
- Recommended the product based on the customer's transaction history using **Python**.
- Analyzed in-depth analysis of H&M customer transaction data to extract valuable insights and identify trends.
- Developed a sequential model for product recommendations, resulting in a 13% increase in the accuracy rate.

Human Activity Analysis | O
- Trained a predictive model using cellphone data to analyze and predict human activity patterns.
- Utilized the **Matplotlib** library to visualize data and identify optimal filter parameters for preprocessing.
- Analyzed various machine learning models for human activity recognition with **Scikit-learn**.

Hope Health Action - Haiti Hospital (Non-profit) | O
- 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 | O
- Engineered a serverless Pomodoro web app with customizable timers and rewards, boosting user productivity.
- Implemented frontend using **Next.js** and created **CI/CD pipleline** 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**.

LEADERSHIP EXPERIENCE

SFU Taiwanese Association   Jun 2021 – Aug 2023
Vice President of Marketing   *Burnaby, BC, Canada*
- Created the digital membership card by Pass2U with **HTML/CSS**, achieving a 56% increase in revenue.

EDUCATION

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