

Alexander Tu

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SKILLS

JavaScript, TypeScript, Python, React (Hooks/Router), Redux, Zustand, HTML, CSS, Tailwind, Node, Express, JSON, API, PostgreSQL, MySQL, MongoDB, OAuth 2.0, Git/Github, Jest, Cypress, Docker, AWS, Travis, CI/CD, Agile, Scrum

EXPERIENCE

OS Labs - dbSpy | Software Engineer

Oct 2022 – Current

- Programmed SQL visualization tool to streamline development during the discovery phase, enabling consumers to prototype, build, and visualize their own relational databases
- Refactored TypeScript files by creating additional custom types and tightening existing ones to account for tech debt, enhancing readability and enabling scalability by alerting developers of breaking changes in the long run
- Implemented Jest unit testing, increasing test coverage by 52% and providing current and future contributors a foundation to upkeep codebase stability and consistency when refactoring or implementing features
- Deployed to AWS with Docker, ELB, EC2, and R53 to boost accessibility and user scalability by containerizing the application and enforcing scalability through AWS features such as load balancing
- Leveraged React Hooks, ES6+ modules, and Zustand (an alternative state management library to Redux) to decouple code by creating a single source state, aiding in scalability for adding new features
- Refined React components improving accuracy in user actions by eliminating bugs, sanitizing user input, and restricting duplication that allow noncompliant schema structures, ensuring databases follow best design practices
- Cleared backlogged items by restoring features such as query generation, query exports, and undo/redo tooling
- Secured user account data by using JWTs and Google OAuth to properly store user data and authenticate users
- Developed under the tech accelerator Open Source Labs (opensource.labs.io)

Azuma | Frontend Software Engineer

Mar 2019 – Oct 2022

- Spearheaded restaurant website overhaul using React, HTML, and CSS, resulting in a modern, responsive, and intuitive design that significantly enhances user experience and boosted overall engagement levels
- Integrated the Google Maps API, creating user-friendly routing assistance and enhancing website functionality
- Optimized website performance and user experience, resulting in over 30,000 annual visitors
- Performed regular website maintenance to ensure optimal functionality and continue driving traffic growth

OPEN SOURCE

Activit.io | Activity Generator Platform

2022

- Utilized React Router and Context API to design and develop a seamless mobile-first user interface, enabling effortless navigation between pages while ensuring consistent state management for consumers
- Integrated a NoSQL database to provide flexible schemas that supported rapid early development
- Led a scrum team of 4-5 engineers using agile methodologies, ensuring deadlines and requirements are met

Memory Jar | Minimalist Mindfulness Application

2022

- Coordinated multiple HTTP requests with Node/Express using middleware design patterns, creating a modular and reusable application architecture that is both readable and easy to maintain
- Used Redux with React to set up the application for scalability by creating a single source of reusable state, allowing for secure scaling when working with overlapping data such as user sessions or feature flags

EDUCATION

Graduate Certificate | *University of Southern California*

Los Angeles, CA

Master's Degree | *California State University - Fullerton*

Fullerton, CA

Bachelor's Degree | *University of Washington*

Seattle, WA

PUBLIC PRESENTATIONS

Cloud Technology and AWS | *Jeeny and Bractlet Engineering Speaker Series*

Remote, CA