Timothy Cheng

408-655-6059 | teecheng5@gmail.com | linkedin.com/in/timothyychengg | github.com/timothychengg

Experience

Frontend Software Engineer — Laer Health May 2025 – Present

React, TypeScript, Supabase, Tailwind, React Query

- Spearheaded a front-end architecture modernization by introducing state colocation, Context-driven data modeling, and atomic UI primitives, reducing bundle size by 18% and cutting initial load time by 200ms.
- Established a platform-wide React Query data layer with normalized query keys, background refetching, and deterministic caching, decreasing redundant network traffic by 50% and improving data consistency.
- Optimized Supabase SQL statements and MongoDB aggregation paths to reduce read latency by 20%, ensuring stable data hydration under 1k+ concurrent active sessions.
- Engineered an accessible, scalable design system using Tailwind, shadcn/ui, and Radix primitives, increasing UI cohesion, reducing CSS drift, and meeting WCAG 2.1 AA requirements.

Frontend Software Engineer — Alki Dec 2024 – Apr 2025

React, TypeScript, Next.js, Node.js, Express

- Architected internal observability dashboards using React + Next.js App Router and SSR data pipelines, enabling real-time visibility across distributed services and improving latency analysis.
- Refactored an untyped Express API into a modular MVC architecture with service boundaries, schema validation, and unified error handling, reducing duplicated logic by 25%.
- Developed domain-oriented shared state modules with React Hooks and Context API, ensuring predictable data propagation across 12+ interdependent components.
- Defined typed API boundary contracts using TypeScript and Zod, eliminating type mismatches and reducing integration defects by 15%.

Full-Stack Software Engineer — OSLabs Sept 2024 – Nov 2024

React, TypeScript, Node.js, Prometheus, Kubernetes

- Developed a real-time Kubernetes observability interface integrating Prometheus scrapes, delivering sub-second metric feedback and improving detection of CPU/memory anomalies.
- Implemented modular Express controllers and typed service abstractions, reducing backend repetition by 25% and improving maintainability.
- Optimized polling intervals, batching logic, and typed hydration flows, reducing metric-fetch overhead by 30% while increasing UI responsiveness under load.

Full-Stack Software Engineer — Alki Jan 2023 – Aug 2024

React, TypeScript, Node.js, Express, MongoDB

- Initiated development of internal operational dashboards using React + Node.js, enhancing service visibility and reducing time-to-diagnosis for engineering teams.
- Constructed and optimized REST endpoints using Express + Mongoose, improving latency during peak traffic and ensuring reliable data hydration for frontend consumers.

Projects

Alkira MFA Authentication System | *React, Next.js, TypeScript, Supabase, Tailwind*

- Implemented a fully typed authentication boundary integrating Supabase Auth with Next.js App Router, featuring OTP-based MFA, session persistence, and protected route gating.
- Designed a scalable UI foundation leveraging atomic component primitives, custom validation schemas, and Tailwind tokens, ensuring predictable state transitions and extensible feature development.

Technical Skills

Languages: JavaScript (ES6+), TypeScript, Python, SQL, HTML, CSS
Frontend: React, Next.js, React Query, Redux, Tailwind CSS, shadcn/ui, Radix UI, RTL, Framer Motion
Backend: Node.js, Express, RestfulAPIs, Supabase, PostgreSQL, MongoDB, Mongoose
Systems / Tooling: Docker, Vercel, Kubernetes, Prometheus, Grafana, Jest, Vite, Webpack, Git

Education

University of California, Santa Barbara

Bachelor of Arts in Economics