Jack Hsu

Frontend Developer | React, TypeScript, Modern Web

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About

Frontend developer with 4 years of experience specializing in React, TypeScript, and modern web frameworks. Combines strong technical execution with product thinking—making informed tradeoffs between implementation complexity, user impact, and timeline constraints. Track record includes end-to-end ownership of Word Game World (multi-platform game editor deployed to Steam), contract work on interactive data journalism (MapLibre, scrollytelling systems), cross-platform SaaS development, and shipped applications to iOS/Android app stores. Deepening expertise in advanced TypeScript patterns and React internals.

Experience

Frontend Developer — team9

August 2024 – Present | Taiwan

- **Exercised complete technical autonomy** as sole architect of **Word Game World**, making all stack decisions, implementation choices, and technical direction for a comprehensive game editor and community platform deployed across web, desktop, and Steam with zero technical oversight or constraints.

- **Designed future-proof, maintainable architecture** considering long-term team scalability by selecting widely-adopted technologies (React, TypeScript, Drizzle ORM) and establishing coding conventions, documentation standards, and deployment patterns that enable knowledge transfer to future developers.

- **Implemented production-grade reliability systems** including comprehensive error handling, automated testing pipelines, and on-call monitoring responsibilities, while engineering backwards-compatible save file versioning and upgrade logic to ensure seamless user experience across application updates.

- **Delivered enterprise-scale monorepo architecture** using Bun package management, TanStack Query, Zod-validated APIs, and automated i18n workflows, successfully deploying to production environments (Vercel, Cloudflare Workers/D1/R2, Steam) with full accountability for uptime and user satisfaction.

Frontend Developer (Contract) — Initium Media (端傳媒)

September 2024 – October 2024 | Taiwan

- **Effectively communicated with non-technical stakeholders** (journalists and designers) to navigate extremely tight deadline constraints, making intelligent tradeoffs between visual complexity and implementation feasibility while maintaining editorial integrity.

- **Invented hand-rolled scrollytelling system** with video editor-inspired timeline architecture featuring multiple tracks, precise duration control, and step-based narrative progression, enabling complex geospatial storytelling across 82+ Chinese cities with distinct mobile and desktop experiences.

- **Engineered interactive map visualizations** using MapLibre GL and Turf.js for spatial analysis, implementing multi-layer data display (subsidence rates, population impact, coastal vulnerability) with proximity-based city interactions and real-time opacity calculations.

- **Delivered performance-optimized solution** under severe time pressure by creating reusable animation systems and responsive rendering patterns, successfully launching complex data journalism piece that effectively communicates climate impact to public audiences.

Frontend Developer — Raviga Group

January 2023 – June 2024 | Exeter, UK

- **Collaborated closely with backend developers and designers** to architect multi-platform SaaS application with shared TypeScript codebase serving **web (React 18/Vite) and mobile (React Native/Expo)** platforms, contributing technical input on code architecture decisions and frontend standards.

- **Worked cross-functionally** with product and design teams to develop an enterprise-scale class management platform implementing admin, company, and customer modules with complex business logic, actively discussing requirements and proposing solutions for optimal user experience.

- **Contributed to engineering best practices** by implementing type-safe API architecture using TanStack Query, Zod schema validation, custom SDK, and OpenAPI specifications, collaborating with the team to ensure full-stack type safety and maintain development standards.

- **Developed expertise in** advanced UI patterns and component customization using Shadcn/ui and Radix UI primitives, architecting a shared component library that enabled the same component files to work across both web (React) and mobile (React Native) platforms through careful abstraction and design system implementation. Collaborated closely with designer on design system implementation through CSS variables and component documentation with visual permutations.

- **Enhanced team knowledge sharing** by creating internal component documentation system with live component demos, prop variations, and code examples, contributing to improved documentation practices across the development team.

- **Implemented comprehensive CI/CD pipeline** with automated unit testing (Jest/Vitest), snapshot testing for UI components, linting (ESLint), and code formatting (Prettier), contributing to successful US market launch.

Frontend Developer — FD Intelligence (飛達智能)

August 2020 – June 2021 | Taipei, Taiwan

- Built comprehensive admin dashboard for service marketplace platform using Vue.js, applying best practices with scoped CSS, Bootstrap, and Vuex state management while focusing on clean, maintainable code.
- Developed multi-role user management system with CRUD operations for service providers ("masters"), clients, orders, and payment calculations, learning to implement complex business logic and database relationships.
- Implemented chatroom functionality with message queries, file uploads, and admin moderation tools by learning real-time technologies, contributing to improved user engagement and platform safety.
- Contributed to service categorization system with hierarchical skill matching, quotation management, and broadcast notifications, delivering features that improved marketplace efficiency.
- Gained experience with CI/CD pipeline using GitLab, Firebase hosting, Jest testing, and Sentry error monitoring, learning deployment best practices and production reliability standards.

Projects

- **Tagly** — Enterprise-scale full-stack web application built with Next.js 15, TanStack Query, Tesseract.js for OCR processing, and comprehensive OAuth integration with advanced image processing capabilities.
- **Cardify** — React Native mobile application featuring barcode scanning, camera integration, offline-first SQLite architecture with Drizzle ORM, cross-platform deployment to iOS and Android app stores.

Skills

Languages: TypeScript, JavaScript **Frontend Frameworks:** React, React Native, Next.js, Vue.js, Electron **Libraries & Tools:** TanStack Query/Router, Jotai, tRPC, Expo, Framer Motion, Immer **CSS & Design Systems:** Tailwind CSS, CSS Modules, Scoped CSS (Vue), Radix UI, Shadcn/ui, responsive design patterns (adaptable to CSS-in-JS solutions) **APIs & Protocols:** REST APIs, WebSocket, OAuth 2.0, JWT, OpenAPI **Schema Validation & Type Safety:** Zod schema validation, TypeScript strict mode, runtime type checking, API contract validation **Build & Package Management:** Vite, Bun, pnpm, npm, ESLint, Prettier, monorepo management, dependency optimization **Testing:** Vitest, Jest, React Testing Library (unit testing), Playwright (E2E testing for authentication flows and form interactions), snapshot testing for UI components, automated testing pipelines **Internationalization:** React-i18next, i18next, locale management, CSV-based translation workflows, multi-language support automation **Backend & Database:** Node.js, Bun, Hono, Express, Cloudflare Workers, Drizzle ORM, SQLite, D1, Redis **Geospatial &**

Visualization: MapLibre GL, Mapbox SDK, Turf.js, GeoJSON, Chart.js, D3.js, Canvas API, WebGL **DevOps & Deployment:** GitHub Actions, GitLab CI/CD, Vercel, Cloudflare (Workers/R2/D1), Firebase, Steam, Expo EAS, Docker **Leadership & Collaboration:** Positive engineering culture promotion, team collaboration and mentorship, cross-functional communication, ownership mindset with end-to-end delivery **Product & Learning:** Product-focused development, proactive learning and technology adoption, continuous improvement advocacy **Languages:** English (Bilingual), Chinese (Bilingual)

Education

Bachelor's degree, Physics University of Exeter | January 2018 – June 2022

Associate of Science (A.S.), Physics & Math Northwestern Michigan College | 2017 – 2018