

# HUI NI ONG

## FRONTEND SOFTWARE ENGINEER

[✉️](mailto:winnieong0609@gmail.com) [@winnie0609](https://www.twitter.com/winnie0609) | [LinkedIn](https://www.linkedin.com/in/hui-ni-ong/) | [Taipei, Taiwan](https://www.taipei.com)

### SUMMARY

A React Frontend Engineer with 3 years of experience, specializing in designing and developing high-performance, and responsive user interfaces. Proven ability in frontend performance optimization and implementing comprehensive testing practices to ensure code quality and reliability. Committed to continuous learning and applying new technologies to enhance application quality and user experience.

### WORK EXPERIENCE

#### Frontend Engineer | TouShih Tech

Jan 2022 – Apr 2025

- Designed and developed the frontend architecture for web and mobile applications using React, Next.js and React Native, responsible for technology selection, frontend design, and core feature development.
- Collaborated with UI/UX designers to translate Figma design specifications into features, and worked with backend teams to integrate RESTful APIs for seamless data flow.
- Managed complex application state using Redux/RTK and Context API based on project complexity, ensuring data consistency across components.
- Established A/B testing framework using Firebase Remote Config to optimize core feature layouts and improve user retention metrics.
- Involved in data-driven product iterations, utilizing Mixpanel for user behavior analysis to gain product insights.
- Built end-to-end AI product features including RAG pipelines, LLM-powered chatbots with agentic workflows (LangChain), and participated in model evaluation, data preparation, and prompt engineering.

#### Frontend Intern | Webby Group, Malaysia

Aug 2021 – Dec 2021

- Developed and maintained web application features using Vue.js, delivering new functionality and bug fixes in collaboration with the team.

### SKILLS

- Frontend:** React, Next.js, TypeScript, Redux
- Styling:** Tailwind CSS, SCSS/SASS, Styled-Components, Responsive Design
- Testing:** Vitest, React Testing Library, Playwright
- Tools:** Git, Figma, Firebase, Mixpanel

### KEY PROJECTS

#### FitJot: Fitness tracking platform (Next.js, Firebase)

A mobile-first personal fitness companion for logging workouts, tracking body composition data, and visualizing progress through interactive dashboards.

- Optimized bundle size through lazy loading and code splitting, reducing page weight by 28-38% and Total Blocking Time by 59%. Implemented DNS prefetch/preconnect for Firebase services to eliminate connection latency.
- Implemented unit, integration, and E2E tests using Vitest and Playwright, covering critical user workflows and edge cases including form validation, error states, and cross-field dependencies to ensure code reliability and cross-browser compatibility.
- Separated static (800+ exercises) and dynamic (user logs) data concerns by pre-loading exercise database via Server Components while managing real-time user data with TanStack Query, preventing redundant Firebase reads.
- Managed complex form state for dynamic workout sessions and 30+ field InBody forms using React Hook Form, implementing cross-field validation and real-time error feedback with Zod.

#### AI Legal Search Platform (Next.js, AI/LM Integration)

AI legal search prototype using semantic search and RAG to find relevant precedents from natural language queries.

- Built the user interface with Next.js and used Firebase Cloud Functions to handle the RAG pipeline (Pinecone vector search, reranking, LLM response generation), with error handling including retry logic and graceful degradation.
- Implemented interactive feedback button with optimistic UI updates, enabling users to rate search results and improve search algorithms.
- Participated in model evaluation and selection (embeddings, reranking, LLMs) and experimented with chunking strategies to optimize search relevance.

### EDUCATION

#### National Tsing Hua University | Department of Chinese Literature

Sep 2016 – Jun 2020

GPA: 4.04 / 4.3