

# Eric Liao

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## EDUCATION

### University of New South Wales

Sydney, NSW

*Bachelor of Computer Science: WAM: 80 / 100 (Distinction)*

*Feb 2022 – Dec 2025*

- Web Front-End Programming - React, Cypress, Jest: 88
- User Interface Design & Construction: usability testing, Figma prototyping, React Native: 89
- Software Engineering Fundamentals - NodeJS, Express, SQLite: 99

## EXPERIENCE

### Software Engineer – Frontend Intern

Dec 2025 – Present

*Freelancer.com*

*Sydney, NSW*

- Developed and maintained web and cross-platform Angular applications while leading framework and library migrations (i.e. Angular 18 to 19, RxJS to Angular Signals, Protractor to Playwright for E2E testing)
- Working with Figma designs to contribute to custom component library for brand consistency using TailwindCSS
- Contributed to internal tools, including Jenkins CI/CD pipelines, automated alerts and data visualisation systems
- Performed Lighthouse audits and performance testing on pages with company custom state management systems

### Software Developer - AI Trainer

Feb 2024 – Nov 2025

*DataAnnotation*

*Remote*

- Fine-tuning LLMs to generate by testing, correcting and improving output for accuracy and performance
- Reviewed and corrected 500+ AI-generated code responses in React, JavaScript / TypeScript, Python, Java, Go, Rust, and SQL to fix bugs, improve readability, and use modern syntax and up-to-date libraries

### Assistant Manager

Feb 2020 – Jan 2022

*All Luggage Solutions*

*Brisbane, QLD*

- Automated manual entry of customer shipping information to reduce packaging times by 25% with JavaScript
- Increased product visibility on Amazon/eBay by optimizing listings for SEO to drive sales and boost engagement

## PROJECTS

### RiceLang Playground | React, Java, Spring Boot, Wasm

Feb 2025 – Present

- Built a compiler for a custom language, RiceLang, a C/Java-like language that compiles to JVM bytecode
- Created a Next.js frontend using Shadcn to handle syntax highlighting, and visualization of AST and output
- Deployed a Spring Boot backend with routes for compilation and execution for clients without WasmGC support
- Integrated a WASM JavaScript transpiler achieving an average 95%+ performance improvement over the backend

### Squaregg10 game | PostgreSQL, Rust, Elixir, Bevy, Phoenix

June 2024 – Present

- Developed a WASM-compiled game using Bevy engine and deployed online with PostgreSQL leaderboard
- Implemented real-time chat using Elixir to take advantage of lightweight websockets on Erlang VM (BEAM)

### Personal Blog | Astro, libSQL, DrizzleORM, TailwindCSS

Oct 2024 – Nov 2024

- Achieved a 99+ Lighthouse score through static site generation with Astro to build a fast and responsive blog
- Integrated AstroDB with DrizzleORM to handle likes, and comments efficiently with optimistic updates

### Recursive DNS Resolver | Python, React, JavaScript, Docker

May 2023 – Jan 2024

- Developed an RFC-1035 compliant DNS resolver handling 500+ queries per second with multithreading
- Created an Express-based backend and React frontend with daisyUI with an intuitive interface with options for using Cloudflare, Google and Quad9 as substitute resolvers and dig as an alternative query builder

### Personal Links | Vue, JavaScript

Jan 2023 – Aug 2023

- Built a personalized site to display relevant links on a single landing page
- Animated custom transitions and effects with native JavaScript and CSS to optimize performance

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Python, Java, C, Rust, Elixir, Bash, SQL, HTML/CSS

**Frameworks / Libraries:** React, Astro, Vue, TailwindCSS, Express, Flask, Springboot

**Databases:** PostgreSQL, SQLite, libSQL, MongoDB

**Developer Tools:** Git, Github Actions, Gitlab CI/CD, Docker, Vercel, Render, Fly.io