

Sam Bai

Full-Stack Software Engineer
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Professional Summary

Software Engineering graduate (2024) with hands-on full-stack experience in React, Next.js 16, TypeScript, Supabase, and real-time collaborative web applications. Combines technical skills with 4 years in cryptocurrency and blockchain analysis, seeking a junior full-stack or frontend role.

Technical Skills

Languages: TypeScript, JavaScript (ES6+), Python, C#, SQL, HTML5, CSS3

Frontend: React.js, Next.js (App Router), Tailwind CSS, Shadcn, Framer Motion, dnd-kit

Backend: Supabase (PostgreSQL + Row Level Security), Node.js, Express.js, Clerk Authentication, Stripe Integration

Tools & Platforms: Git/GitHub, VS Code, Vercel, Docker, Selenium (Python & C#)

AI-Assisted Development: Claude, Perplexity, Google Antigravity; exploring automated testing (Playwright, Vitest, Jest, Cypress) with AI-assisted workflows in Antigravity

Methodologies: Agile/Scrum, REST APIs, Responsive Design, Browser Automation, Database Design

Key Projects

Task Management Platform ([taskflow-board](#)) | Full-Stack Developer

Tech Stack: *Next.js 16 (App Router), Supabase (PostgreSQL + Realtime), Clerk, Stripe, TypeScript, Tailwind CSS, Shadcn, dnd-kit*

- Built and maintain a Trello-style task management platform inspired by a public tutorial, building the codebase from scratch and extending it with custom features (board management, delete flows, date tracking, last-edited indicators, animations) plus refactors and UI/UX improvements
- Built drag-and-drop task management with optimistic UI for seamless UX, improving smoothness and reliability of board and task interactions using dnd-kit
- Implemented and refined Supabase Row Level Security (RLS) policies to ensure tenant isolation, data privacy, and a secure multi-tenant architecture
- Integrated Clerk for OAuth authentication (Google, GitHub) and Stripe for subscription-based payment processing to support smooth onboarding and monetization
- Built real-time collaboration features using Supabase Realtime subscriptions for live updates across multiple users and devices
- Deployed to Vercel with optimized build configuration, leveraging server-side rendering (SSR) and static generation for performance and a solid developer experience

[GitHub Code](#) | [Live Demo \(taskflow-board\)](#)

Browser Automation Suite | Developer

- Developed Python Selenium scripts to automate repetitive web interactions, significantly reducing manual data entry time
- Created batch scripts to streamline local development workflows, environment setups, and deployment processes
- Implemented error handling and logging mechanisms for reliability

Portfolio Website | Developer

- Built responsive portfolio site showcasing projects, resume, and LinkedIn integration

- Designed with modern web standards using React and Tailwind CSS for optimal user experience

Professional Experience

Software Engineering Intern | Waka Transportation Community

Tauranga, New Zealand | March 2024 – July 2024

- Collaborated with a cross-functional development team to build the Waka Transportation Platform, a community-driven transport solution connecting riders with local transportation services
- Contributed to the full software development lifecycle (SDLC) using the MERN Stack (MongoDB, Express.js, React, Node.js)
- Translated UI/UX designs into responsive, reusable React components, ensuring cross-browser compatibility
- Implemented RESTful API endpoints and integrated frontend with backend services for seamless data flow
- Participated in code reviews, weekly stand-ups, and sprint planning meetings, gaining hands-on experience in Agile workflows and collaborative version control (Git/GitHub)
- Debugged production issues and optimized component performance through React profiling tools

Independent Crypto Trader & Market Analyst | Self-Employed

Hamilton, New Zealand | 2021 – 2025

- Managed a personal cryptocurrency and DeFi portfolio over 4 years using data-driven strategies across multiple exchanges and accounts
- Developed strong analytical and risk assessment skills while deepening knowledge of blockchain fundamentals, Web3 protocols, and smart contracts
- Used and customized *automated trading and portfolio tracking tools (leveraging Python and other platforms)* for market analysis and process automation

Education

Bachelor of Applied Information Technology (Software Engineering)

Waikato Institute of Technology (Wintec) | Hamilton, New Zealand

Graduated: Class of 2024

Relevant Coursework: *Software Development, Web Development, Database Design & SQL, Systems Analysis, OOP, Software Testing, Mobile Apps, Cyber Security, Big Data & Analytics, Game Development, Project Management / SE Project*

Capstone Project: Led development of a Kotlin-based Android drug control application for Anglesea as project manager, coordinating a team to design and implement core features for tracking controlled and uncontrolled medications

Skills Development & Additional Information

Core CS & Frontend Fundamentals:

Strengthening data structures and React fundamentals through documentation, tutorials, and project-based learning

Continuous Learning:

Exploring advanced React patterns, modern TypeScript best practices, and full-stack architecture with Next.js and Supabase

Community Engagement:

Studying open-source projects and modern development practices to stay current with industry trends

Work Eligibility:

Permanent Resident of New Zealand (since 5 May 2022) – authorized to work without sponsorship; based in Hamilton, open to in-office, hybrid, or remote roles anywhere in New Zealand

Career Focus:

Seeking junior full-stack or frontend roles to gain commercial experience and grow within a modern engineering team