

# Sam Bai

Full-Stack Software Engineer

Hamilton, Waikato, New Zealand

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## Professional Summary

Results-driven Wintec Software Engineering graduate (2024) with hands-on full-stack experience in React, Next.js 16, TypeScript, Supabase, and secure real-time apps. Combines technical prowess 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, Cursor, Google Antigravity), Testing with AI-assisted workflows in IDEs like Cursor (Playwright, Vitest, Jest, Cypress)

**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 drag-and-drop task management with optimistic UI for seamless UX using dnd-kit
- Implemented Supabase Row Level Security (RLS) policies to ensure data privacy and multi-tenant security architecture
- Integrated Clerk for OAuth authentication (Google, GitHub) and Stripe for subscription-based payment processing
- Built real-time collaboration features using Supabase Realtime subscriptions for live updates across multiple users
- Deployed to Vercel with optimized build configuration, leveraging server-side rendering (SSR) and static generation for performance
- Live Demo: Fully functional application with comprehensive CRUD operations and responsive design

### 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 substantial personal cryptocurrency and DeFi portfolio over 4 years using data-driven trading strategies
- Developed analytical and risk assessment skills by monitoring market trends, evaluating tokenomics, and executing trades across multiple exchanges
- Gained deep understanding of blockchain technology, Web3 protocols, smart contracts, and decentralized finance (DeFi) ecosystems
- Used and customized existing automated trading and portfolio tracking tools (leveraging Python and other platforms) for market analysis
- Demonstrated resilience and adaptability in navigating highly volatile markets and rapidly evolving technologies

## **Education**

### **Bachelor of Applied Information Technology (Software Engineering)**

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

Graduated: Class of 2024

Relevant Coursework: *Software Development, Application Development, Database Design, Database Modelling and SQL, Web Development, Systems Analysis, Object-Oriented Programming, Mathematics for Information Technology, Software Testing, Game Development, Mobile Application Development, Cyber Security, Big Data and Analytics, Project Management / Software Engineering 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

**AI-Enhanced Development:** Using Claude, Perplexity, Cursor, and Google Antigravity to accelerate development, debugging, and test scaffolding (Playwright, Vitest, Jest, Cypress)

**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 full-time or contract junior software engineer / full-stack or frontend roles to gain commercial experience and grow within a modern engineering team