

Justin Zhang

justin.zhang.work@gmail.com | linkedin.com/in/justin-shengye-zhang

Software engineer with experience in mobile and web architecture, CI pipeline setup, and test infrastructure. Built a Jest test suite reaching 80% code coverage and a YAML-based CI pipeline using Husky pre-push hooks, cutting intern ramp-up time from 3-4 weeks to under 2, and increasing feature throughput by roughly 70%. Also led mobile app architecture redesign and legacy SDK extraction in a pre-seed startup. Looking to move into SRE where the same instinct for system reliability and failure prevention applies at larger scale.

WORK EXPERIENCE

Biosignals Diagnostics | Melbourne, Victoria, Australia 03/2025 - Present

Associate Platform Developer | Part-time

- Spearheaded the redesign of mobile app architecture within 3 weeks, enabling rapid development and effectively addressing legal compliance challenges.
- Extracted and documented from legacy SDK within 3 months, significantly enhancing team knowledge and reducing onboarding time for new developers
- Developed a comprehensive test harness that improved code coverage by 60%, enhancing the development process and reducing bugs within 2 months
- Developed comprehensive documentation within 1 week, enhancing onboarding efficiency for interns and streamlining their integration into the team
- Guided interns through the development lifecycle, improving their coding skills and leading to innovative solutions that addressed key development challenges.
- Authored a comprehensive onboarding guide, boosting new developer efficiency by 70% within 1 month by providing clear processes and resources

Cloud API Development Intern

- Collaborated with cross-functional teams to translate complex business needs into actionable design documents, fostering innovation and improving project outcomes.
- Developed a functional MVP using Oracle APEX within 6 weeks, enhancing project clarity and accelerating the development process.
- Visualized system architecture within, enhancing team understanding and facilitating smoother project execution.
- Increased query performance by implementing precomputed data storage, achieving a minimum of 50% reduction in response times

EDUCATION

Master of Software Engineering in Distributed System

University of Melbourne | GPA: H2A

01/2023 - 12/2025

Relevant Coursework: Distributed Systems, High performance computing, Security and Software Testing, Advanced Database systems

Bachelor of Science - BS in Computer Software Engineering

University of Melbourne | GPA: H2A

01/2021 - 12/2023

AI, Computer Networking, Algorithm and Data Structure, Object Oriented Programming, Database systems, Machine Learning, Computer Architecture

CERTIFICATIONS

Developing a Google SRE Culture

Coursera

03/2026 - Present

PROJECTS

Collaborative Whiteboard

- Built a multi-user collaborative whiteboard application from scratch in Java, implementing real-time synchronisation and chat over a client-server architecture using RMI (Remote Method Invocation)
- Managed low-level network communication between clients and server, handling concurrent connections and live state updates across multiple users
- Designed and integrated a Swing-based GUI with a distributed backend, bridging the interface layer down to the network transport layer

Databrick Web Application Development

- Engineered a scalable video storage solution using AWS S3, achieving a 65% increase in data access speed within 3 months.
- Designed and launched a user-friendly show editing page, significantly improving editing efficiency and reducing user errors through intuitive design principles
- Optimized video management on AWS S3 by utilizing FFmpeg for format conversion, ensuring efficient uploads and reducing processing time within 2 months
- Integrated AWS Cognito for secure user authentication and developed notification features using AWS SES, improving system reliability and user engagement

Swordfish - Robot Odessa game

- Contributed to the compiler frontend of a team-built DSL for robot behavior control, implementing lexer, parser, and semantic analyser components in C++ using Lex and Bison
- Designed and implemented the language standard library, wrapping mathematical functions into clean, language-native APIs to shape the end-user writing experience
- Built the source-to-bytecode compilation pipeline, translating high-level source code into bytecode consumed by a custom virtual machine
- Collaborated across lexing, parsing, semantic analysis, and code generation stages, gaining end-to-end exposure to real compiler architecture and toolchain design

VOLUNTEERING & LEADERSHIP

TAIE

- Created a user-friendly class management system with Next.js, improving user satisfaction and reducing administrative tasks within 3 months
- Established a robust database architecture using Supabase, enhancing data management for users and courses, ensuring efficient retrieval and storage
- Established a robust database architecture using Supabase, enhancing data management for users and courses, ensuring efficient retrieval and storage

SKILLS

Android, API, AWS, C, C++, Claude Code, Docker, Expo, Git, Github, Java, JS, Next.js, NextJS, Node.js, OCI, PostgreSQL, Prisma, Python, React native, SQL, TS, Typescript, Version Control