

# Shijie Gan

## Software Engineer

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## WORK EXPERIENCE

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### Trontal Group, Full Stack Engineer 2025 – Present

- Took features from system design to deployment rapidly at an early-stage blockchain quantitative trading startup (kiyotaka.ai/chart 🌐), gaining hands-on experience across blockchain, cryptocurrency markets, and quantitative trading systems.
- Scaled the platform from 0 to 50,000 monthly active users, refactoring the codebase into a modular, scalable architecture that kept the system fast and reliable as traffic grew.
- Single-handedly built Kata, an AI coding assistant that helps users write kScript, Trontal's native scripting language for authoring trading indicators, lowering the barrier for non-developers to create custom indicators.
- Architected and built the entire live collaboration system from scratch: real-time updates over WebSockets, session management, and live chat.
- Sole developer of multiple platform-critical features, including the guest access system, Progressive Web App (PWA), an alert notification system, in-app and push notifications for mobile devices, and trading integrations across centralized exchanges (Binance, Bybit) and decentralized exchanges (Hyperliquid).
- Promoted to Charting Engineer with ownership of core charting library and platform infrastructure, demonstrating technical leadership in a fast-paced blockchain startup.

### Ant International, Backend Engineer 2024 – 2025

- Delivered backend and middleware components for multiple critical projects, including the merchant registration system, non-insured refund project, and merchant OTP system.
- Implemented asynchronous processing with message brokers, recurring tasks with job scheduling, and runtime tunability via dynamic resource configuration, on a SOFABoot / Spring Boot stack.
- Applied Ant's three golden rules of security and risk management - grayscale rollout, monitoring, and emergency response - to ship changes safely at scale.
- Built systems to handle large-scale traffic during high-demand events like 11.11, gaining deep exposure to the acquiring and payments ecosystem.
- Collaborated cross-functionally with teams across China and Singapore in a high-intensity, fast-paced engineering culture.
- Selected for a business trip to attend Ant International's global event in Hangzhou, China; gained business exposure while working onsite at Ant HQ and Alibaba's Xixi campus.

### iFAST Corporation Ltd., Full-Stack Software Engineer 2023 – 2024

- Developed and maintained features for the iFAST Global Bank platform (ifastgb.com 🌐) across the full stack.
- Delivered a back-office email service in collaboration with a senior developer.
- Built and integrated RESTful APIs with Spring Boot and shipped frontend features in Angular.
- Translated user requirements into system designs and components alongside UI/UX teams, and improved application stability by resolving bugs.
- Worked within an industrial Scrum process (daily stand-ups, sprint planning) and took part in the KitaHack hackathon.

## EDUCATION

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### Monash University, Bachelor Degree of Computer Science 2022 – 2025

- CGPA **3.97/4.00**; WAM **90.15/100**; Monash High Achiever Award.
- Highest scorer in multiple academic subjects, including 100% score in Python Development & Mobile Application Development.
- Won 1st Place in the AI Pac-Man Challenge across campuses in Malaysia and Australia.

### Imperial College London, Certificate of Higher Education in Mechanical Engineering 2019 – 2022

- Received Recognition for Excellence in Design and Manufacture.
- Ranked in the top 10% of the cohort in several examinations.

### Taylor's College, Cambridge A-Levels 2018 – 2019

- A\* A\* A\* A\* (Full A\*)
- Recognized for A-Level's High Achiever.
- Awarded with Taylor's Merit Scholarship.

## PERSONAL PROJECTS

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- Personal Portfolio Website** [↗](#) 2025  
Built a personal portfolio website using Next.js, TypeScript, and Framer Motion, featuring glassmorphism, smooth animations, and a responsive UI to showcase my software engineering journey.
- Project Atom - AI-Powered 3D Robot Controller** [↗](#) 2025  
AI-powered 3D robot controlled by real-time hand tracking using MediaPipe/TensorFlow. Built with Ursina game engine and Mixamo animations. Multi-threaded design achieves 30+ FPS with instant gesture response.
- Blockchain Treasure Hunt** [↗](#) 2025  
Blockchain Treasure Hunt is a decentralized Web3 game built on the Base blockchain. Players connect their MetaMask wallet and compete for ETH prizes through on-chain transactions. Built with Solidity smart contracts, Next.js, and Wagmi, demonstrating full-stack dApp development.
- Chrome Extension - Quickie** [↗](#) 2025  
Developed Quickie, a one-click Chrome extension using Manifest V3 and the Chrome Extensions API. It enables instant access to browser actions including tab management, scrolling, site settings, cookie settings, and QR code generation, enhancing productivity without the need for shortcuts or menus.
- AI Chatbot Platform** [↗](#) 2024  
Designed and developed an AI-powered chatbot platform that empowers businesses and individuals to create and deploy custom chatbots with ease. Users can upload documents (PDF, Word, Excel, Text), which are processed using Retrieval-Augmented Generation (RAG) techniques and indexed in a vector database. The platform trains a tailored chatbot based on the uploaded content, enabling users to embed it seamlessly into websites via a simple iframe tag. Intelligent responses are generated using OpenAI's ChatGPT API, ensuring accurate and context-aware interactions.
- Pac-Man AI** 2024  
Designed and implemented intelligent AI agents to play Pac-Man using A search with custom heuristics, alpha-beta pruning, Q-learning, Value Iteration, and a from-scratch perceptron model for optimal decision-making in complex, randomized maps.
- Tetris Game** [↗](#) 2023  
Developed a modern Tetris game using TypeScript and RxJS with reactive architecture, SVG rendering, and immutable state management. Features include real-time input handling, scoring, level scaling, hold queue, next piece preview, and custom wallkick logic, all without a game engine.

## AWARD

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### International Level

- Australian National Chemistry Quiz | Royal Australian Chemical Institute | 2018 - *High Distinction Award*
- Euclid Contest | University of Waterloo | 2018 - *Distinction Award*
- Australian Mathematics Competition | Australian Mathematics Trust | 2018 - *Distinction Award*
- Australian Mathematics Competition | Australian Mathematics Trust | 2016 - *Distinction Award*
- Australian Mathematics Competition | Australian Mathematics Trust | 2014 - *Distinction Award*
- Kangaroo Maths Competition | Association Kangourou sans Frontières | 2016 - *Gold Medal*
- Kangaroo Maths Competition | Association Kangourou sans Frontières | 2014 - *Silver Medal*
- UNSW Global Mathematics | University of New South Wales | 2016 - *Distinction Award*
- UNSW Global Mathematics | University of New South Wales | 2015 - *High Distinction Award*
- UNSW Global Mathematics | University of New South Wales | 2013 - *Distinction Award*
- Singapore and Asian Schools Math Olympiad | SASMO | 2016 - *Bronze Award*
- Singapore and Asian Schools Math Olympiad | SASMO | 2014 - *Silver Award*

### National Level

- Monash Coding League | Monash University | 2024 - *Sixth Place*
- Hackfest Hackathon | Monash University | 2024 - *Participation Award*
- KitaHack | GDSC Malaysia | 2024 - *Participation Award*
- Malaysian National Chemistry Quiz | Ministry of Education Malaysia | 2017 - *Distinction Award*
- National Olympiad Mathematics Competition | Ministry of Education Malaysia | 2015 - *Honorary Commendation*
- National Chess Competition | UTeM | 2012 - *Award of Excellence*

### School Level

- Monash High Achiever Award | Monash University | 2022-2025 - *High Achiever*
- FIT2081 Mobile Application | Monash University | 2024 - *Commendation Award*
- Pac-Man Challenge | Monash University | 2024 - *1st Place*
- FIT1043 Data Science Kaggle Competition | Monash University | 2022 - *2nd Place*
- Design and Manufacture | Imperial College London | 2021 - *Excellence Award*
- Chinese Society | SMJK Yok Bin | 2017 - *President*
- Chess Club | SMJK Yok Bin | 2017 - *Vice President*

## SKILLS

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### Frameworks

React, Vue, Angular, Springboot, Flask, Next.js, Node.js, Express.js, MongoDB, PostgreSQL

### Development Principles

OOP, DAO, UI/UX, Data Structures, Database Design, Sequence Diagram, Middlewares, Cybersecurity, Git, Docker, AI Coding

### Programming Languages

Python, Java, JavaScript, TypeScript, SQL, HTML, CSS, R, Marie, Haskell, Go

### Data Science

Data Analysis, Data Modeling, Statistical Modeling

### Artificial Intelligence

OpenAI APIs, LangChain, RAG, Vector Database, Gaming, Search Algorithms, AI Workflow

## LANGUAGE

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English



Chinese



Malay



Cantonese

