

ALSON LEE JIAN YANG

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TECHNICAL SKILLS

Programming Languages | TypeScript, Javascript, HTML, CSS, SQL, Java, MATLAB, Microsoft VBA, Python, C, R

Frameworks | React, TailwindCSS, Bootstrap, Phaser.js, tRPC

Developer Tools | Vite, Next.js, Jest, Linux/Unix, Shell, Flask, Zod, Drizzle, Axios, Docker

Cloud & DevOps | Git/GitHub, Vercel, AWS (Amplify, Lambda, Cognito, DynamoDB, S3), GCP, Terraform

Visual Design | Canva, Fusion360, Tiled, Google Stitch

EXPERIENCE

Fullstack Software Engineer Intern, Kisi – Stockholm, Sweden

Jan 2026 — Present

Security technology company leading access control solutions

TypeScript | React | TailwindCSS | GCP | Docker | Terraform

- Built a **live leaderboard and analytics dashboard** connected to a Concept2 ergometer to track rowing distance, presented at **FIBO Conference** in Cologne, Germany, with 367 participants
- Collaborated with **product manager, designers and marketing team** to align Google Stitch copy and translated into a **production UI** for contestants
- Designed and executed a migration plan to move a third-party camera integration from Firestore to PostgreSQL, projecting **\$500/mth** in infrastructure cost savings **across 600+** affected customers
- Took ownership of Kisi Kiosk visitor management and printing tickets as the **sole on-site engineer** in the Stockholm office
- Built **OAuth-based authentication** for marketplace integrations and **provisioned GCP secrets** via **Terraform** for secure deployment

Founding Software Engineer, VisEyeQ – Singapore

Feb 2025 — Oct 2025

VC-backed AI startup revolutionising warehouse safety powered by IoT

TypeScript | React | TailwindCSS | Vite | AWS

- Developed a **B2B SaaS cloud-based dashboard** analysing data from IP cameras, IoT wearables and ML models
- Integrated IoT-enabled wearables with frontend using **custom APIs** via AWS API Gateway
- Engineered **secure authentication** using AWS Cognito with email & Google OAuth
- Built **AWS Lambda functions** to compute injury cost savings and ROI
- Managed **persistent** user/incident data with **AWS DynamoDB**; streamed video from AWS S3

Open Source Contributor, Source Academy – Singapore

Jan 2025 — May 2025

Online programming environment and visual debugger to teach programming classes

TypeScript | React | Jest

- Implemented **7 bugfixes** and **3 new features** used by 1,200+ undergraduates
- Wrote **10 high-coverage Jest test cases** for unit/integration testing
- Co-developed **CSE Machine**, a Source-to-JavaScript interpreter
- Engineered core features: **control flow**, **instruction order**, and **built-ins**
- Selected presenter at **NUS STePS conference**

TECHNICAL PROJECTS

Shift Happens – Puzzle Platformer Game

May 2025 — Jul 2025

2D puzzle-platformer roguelite game with scaling difficulty and powerups

JavaScript | Phaser.js | Tiled | Vite | Vercel

- Designed **8 puzzle levels**, **6 core gameplay mechanics** and **5 unique power-ups** for addictive gameplay
- Developed **level scaling logic** based on player performance (time taken, number of deaths)
- Built a **level editor workflow** using Tiled custom properties, allowing Phaser to dynamically interpret object logic
- Implemented player feedback features including **knockback**, **health UI**, **animations**, and **contextual sound effects**
- Resolved complex physics issues by applying **manual collision handling and fine-tuning drag, gravity, and velocity**

Sudoku Solver – Game Web App

Dec 2024

Web app to play and solve Sudoku puzzles

JavaScript | Python | Flask | Bootstrap | HTML | CSS

- Developed a Sudoku game with an **integrated backtracking solver engine**
- Implemented **DFS-based algorithm**, supporting puzzles exceeding difficulty 11.0

EDUCATION

National University of Singapore (NUS), Bachelor of Computing, Computer Science (Hons) **Aug 2024 — Present**

- Year 3 | NUS Merit Scholar (Top <5.0%) | Current GPA: 4.69 / 5.00 (First Class Honours)

Hwa Chong Institution (HCI), GCE 'A' Levels

Jan 2020 — Dec 2021

- AAA/AAA in Physics, Chemistry, Mathematics, Economics, General Paper, Project Work | H3 Chemistry Merit
- Science & Math Talent Program | Hwa Chong Diploma with Distinction | MOE Edusave Scholarship for Independent Schools (ESIS) Scholar

ADDITIONAL INFORMATION

Languages | English, Mandarin (both spoken and written), Japanese (JLPT N4)

Interests | Entrepreneurship, Reading, Solving puzzles, Hunting for good food