ALSON LEE JIAN YANG

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EDUCATION

National University of Singapore (NUS)   **Aug 2024 - Present**
Bachelor of Computing in Computer Science (Honours)
- NUS Merit Scholar (Top <5.0%)
- Current GPA: 4.88 / 5.00 (First Class Honours)

Hwa Chong Institution (HCI)   **Jan 2020 - Dec 2021**
GCE 'A' Levels
- AAA/AAA in Physics, Chemistry, Mathematics, Economics, General Paper, Project Work
- Hwa Chong Diploma with Distinction
- MOE Edusave Scholarship for Independent Schools (ESIS) Scholar
- H3 Chemistry Merit

STARTUP EXPERIENCE

Founding Software Engineer, VisEyeQ – Singapore   **Feb 2025 - Present**
River Venture-backed AI startup revolutionising warehouse safety powered by AI/ML and IoT
- Developed a **B2B SaaS cloud-based** dashboard to visualize **real-time** safety alerts and incident analytics in warehouses, using **React**, **TypeScript**, **TailwindCSS**, and deployed on **AWS Amplify** for **CI/CD**
- Integrated **IoT-enabled wearables** with frontend using **custom APIs** via **AWS API Gateway** to surface live hazard data
- Engineered a **secure authentication flow** with **AWS Cognito**, supporting both email and Google OAuth sign-in options
- Designed and implemented **AWS Lambda** functions to compute injury cost savings and return-on-investment (ROI) metrics
- Managed **persistent data** with **AWS DynamoDB** for user input and incident history; streamed hazard footage from **AWS S3 buckets**
- Collaborated with cross-functional team for **Demo Day pitch (Jun 2025)** and **StartupSG Founder Grant** application; targeting **pilot deployments** by Aug 2025

PROFESSIONAL EXPERIENCE

Open Source Contributor, Source Academy – Singapore   **Jan 2025 – May 2025**
Experiential environment as education tool to teach programming classes
- Implemented **7 critical bugfixes** and **3 new features** used by **1,200+ undergraduates every year** for learning
- Co-developed the **CSE Machine**, a Source-to-Javascript **interpreter**
- Co-engineered core features of the **Source language**, including its control flow, instruction execution order and built-in functions
- Developed **10 high-coverage** unit and integration tests using **Jest,** including edge cases for control flow and instruction evaluation
- Selected to present project at **NUS STePS** conference to potential investors and government agencies

Signal Operator, Singapore Armed Forces Lancer – Brunei Darussalam   **Jan 2022 - May 2024**
- Set-up **industrial-scale networking capabilities**, including installation and maintenance of networking hardware and software
- Upgraded camp-wide IT infrastructure to support **WiFi 6** while tripling load-bearing capacity and

endpoints, leading to a **200% increase** in broadband coverage
- Developed a **custom Excel VBA macro** and database system to streamline administrative forms, re-designed workflow by reducing processing time by 50% and eliminating human error

TECHNICAL PROJECTS

Sudoku Solver - Game Web App   **Dec 2024**
- Created a fully functional **Sudoku game** web app featuring an **integrated backtracking engine** to solve puzzles instantly
- Implemented backend game-solving system using **Depth-First-Search** algorithm to solve user-submitted Sudoku puzzles, including puzzles exceeding difficulty 11.0
- Frontend: HTML, CSS (with Bootstrap), Javascript   Backend: Python, Flask

Personal Portfolio Website   **Jan 2024**
- Created a **personal home page** to display achievements and full portfolio.
- Frontend: HTML, CSS (with Bootstrap), Javascript

ADDITIONAL INFORMATION

- Programming Languages: Python, Javascript, Typescript, Java, HTML, CSS, SQL, MATLAB, Microsoft VBA, C, R
- Technologies: Vite, Next.js, React, Linux/Unix, Shell, Flask, Git/GitHub, Vercel, Amazon Web Services, cURL, TailwindCSS, Bootstrap, Jest, Microsoft Office Suite, PowerAutomate, Arduino, Fusion360, Phaser.js, Tiled
- Languages: Fluent in English and Mandarin (both spoken and written)
- Interests: Entrepreneurship, Learning Japanese, Solving puzzles, Hunting for good food