# **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

#### **PROJECTS**

#### Sudoku Solver - Game Web App, https://sudokusolver- beryl.vercel.app/sudoku

- 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 usersubmitted Sudoku puzzles, including puzzles exceeding difficulty 11.0
- Frontend: HTML, CSS (with Bootstrap), Javascript. Backend: Python, Flask

#### Personal Portfolio Website, https://alsonleej.github.io/

- Created a personal home page to display achievements and full portfolio.
- Frontend: HTML, CSS (with Bootstrap), Javascript

#### **EXPERIENCE**

## **Open Source Contributor, Source Academy, Singapore**

Jan 2025 - Present

- Implemented bugfixes and new features into Source Academy, an experiential environment 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

### 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, redesigned workflow by reducing processing time by 50% and eliminating human error

#### ADDITIONAL INFORMATION

- Skills: Programming Languages (Python, C, R, Java, SQL, MATLAB, Microsoft VBA, HTML, CSS, Javascript/Typescript), React, Linux/Unix, Git/GitHub, Vercel, Proficient in Microsoft Office Suite
- Languages: Fluent in English and Mandarin (both spoken and written)
- Interests: Learning Japanese, Solving puzzles, Hunting for good food