

Zhiyang Lu

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EDUCATION

National University of Singapore

Jul 2022 – Present

Bachelor of Computing in Computer Science, GPA: 4.86/5.00

Singapore

- **Special Programmes:** NUS College - the honours college of NUS, Second major in Quantitative Finance.
- **Coursework:** Programming Methodology, Data Structures and Algorithms, Computer Organisation, Design and Analysis of Algorithms, Operating Systems, Introduction to AI and ML, Discrete Structures.

Rangitoto College

Jan 2017 – Nov 2021

International Baccalaureate DP, Grade: 45/45 (Valedictorian / Dux Litterarum)

Auckland, New Zealand

- **Coursework:** Mathematics AA HL, Physics HL, Chemistry HL, English LL SL, History SL, Mandarin SL.
- **Activities:** IB DP NZ Top Scholar, Chinese Night Organisational Committee, Founder of Mathematics Club.

ACHIEVEMENTS

NZ International Mathematical Olympiad Squad Member

2021

New Zealand Mathematical Olympiad Committee

Auckland, New Zealand

- Selected as one of 12 representatives for New Zealand to compete in international level maths Olympiads.
- Honourable Mention in Asian Pacific Mathematical Olympiad, Silver Medal in New Zealand Mathematical Olympiad, Bronze Medal in Australian Mathematical Olympiad.

NZQA Outstanding Scholar

2020 & 2021

New Zealand Qualifications Authority

Auckland, New Zealand

- Ranked top 50 among a national cohort of roughly 160,000 students.
- Outstanding pass in Calculus, Physics, and Chemistry. Scholarship pass in English.

EXPERIENCE

Software Developer

May 2023 – Present

NUS College Impact Experience Programme

Singapore

- Developed a full-stack web application using Python Flask to address healthcare data management for centres based in Kampong Chhnang, Cambodia.
- Designed and implemented a responsive and intuitive interface with HTML and CSS Bootstrap5, ensuring accessibility and facilitating efficient data entry.
- Integrated SQL for robust backend database management with data validation and error handling mechanisms to enhance data retrieval accuracy, security, and reliability.

Sales & Technical Support

Mar 2022 – Jul 2022

iStore, Full-time

Auckland, New Zealand

- Top sales staff with over 100k monthly sales. Performed software services like restores and data transfers.

PROJECTS

Monopoly Board Game Simulator | Java

Apr 2023 – Jul 2023

- Involves complex class design that demonstrates strong object-oriented programming language understanding through applying relevant OOP concepts such as, inheritance, polymorphism, and encapsulation.
- Acquired comprehensive knowledge and understanding of well-documented standard libraries (Java Standard Library) as well as their wide range of pre-built classes, methods, and data structures.

Course Projects | Java, C / C++, Python, JavaScript

Aug 2022 – Present

- Coded numerous different complex algorithms such as single-source shortest path, minimum spanning tree, travelling salesman, stable matching, min-cut max-flow, and dynamic programming.
- Worked extensively with all prominent programming data structures and algorithms and obtained thorough understanding of their key characteristics and invariants.

TECHNICAL SKILLS

Languages: Java, C / C++, Python, JavaScript, HTML/CSS, SQL

Frameworks / Libraries: Flask, NumPy, pandas, Bootstrap5

Developer Tools: GitHub, Visual Studio Code, IntelliJ, CLion, PyCharm, WebStorm, VIM