

Zhiyang Lu

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EDUCATION

National University of Singapore

Jul 2022 – Present

Bachelor of Computing in Computer Science, GPA: 4.94/5.00

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, Discrete Structures
- **Activities:** NUSC Presidential Directorate - Special Projects, NUSC Peer Mentor, NUSC Orientation Group Leader

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:** IBDP NZ Top Scholar, NZQA Outstanding Scholar 2020 & 2021, Academic Top Scholar 2019 & 2020, Chinese Night Organisational Committee, Founder of Maths Competitions Club

EXPERIENCE

Lead Developer

May 2023 – Present

NUS College Impact Experience Programme

Singapore

- Involved in a overseas regional Impact Experience (IEx) Project over a span of two years.
- Developing digital solutions for health centres based in Kampong Chhnang, Cambodia.
- Participate in overseas field trips to study local conditions and collaborate with Water and Healthcare Foundation (WAH) to bring positive impact to underserved communities.

Sales & Technical Support

Mar 2022 – Jul 2022

iStore, Full-time

Auckland, New Zealand

- Recognised as top sales staff with over 100k monthly sales.
- Provided customers with valuable guidance and optimal purchase suggestions.
- Performed numerous software jobs such as restores, data transfers, and basic set-ups.

Maths Competitions Instructor

Apr 2022 – Jul 2022

A+ Global Academy, Part-time

Auckland, New Zealand

- Trained students in preparation for major national mathematical events.
- Designed training questions, prepared practice materials, and conducted both online and in person lectures.
- Marked students' solutions, supervised contests, and provided critical feedback to spur improvement.

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) which offers a wide range of pre-built classes, methods, and data structures.
- Implemented a scalable architecture so additional functionality can be easily expended in the future.

Course Projects | Java, C, 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.
- Implemented scenario specific solutions through creating Java monad packages and adopting aspects of parallel and concurrent 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, Python, C, JavaScript, HTML/CSS, R, MATLAB

Frameworks / Libraries: JUnitm, NumPy

Developer Tools: GitHub, Visual Studio Code, IntelliJ, VIM