Si Yong Lim

Master of Software Engineering (Artificial Intelligence)

Penultimate-year Software Engineering student with strong foundations in computer science, data structures, and algorithms. Experienced in developing full-stack applications using Java, Python, and modern web technologies, with a passion for building innovative, reliable, and scalable solutions.

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EDUCATION

The University of Melbourne *Feb 2024 – Dec 2026*
Master of Software Engineering (Artificial Intelligence)

- Weighted Average Mark: 84.250 / 100 – First Class Honours

Curtin University *Jul 2019 - Jul 2023*
Bachelor of Electrical and Electronic Engineering (Honours)

- Course Weighted Average: 90.31 / 100 – High Distinction
- Final Year Project: Two-phase Switching Optimization in Vision Transformer

WORK EXPERIENCE

Happy Kitchen (Server) *Nov 2024 - Jan 2025*

Top Glove *Dec 2021 - Feb 2022*
Automation Engineering Intern

- Enhanced purging system by optimizing detection, rejection, and basket design to address defective glove issues.
- Monitored and stabilized acid/alkaline auto top-up systems to prevent overflow and reduce wastage within ±10%.
- Improved artificial intelligence vision camera dual bin basket system accuracy by ~15% to prevent bypass and double-dipped gloves.

Curtin University (Tutor) *Mar 2020 – Dec 2020*

CCN Mobile (Salesman) *Jun 2018 - Aug 2018*

Musical Ark (Music Teacher) *Aug 2016 - Aug 2017*

PROJECTS

Customer Loyalty App *React, Python, MongoDB, MySQL*

- Built a full-stack system that syncs loyalty points from a POS (MySQL) to MongoDB in real-time.
- Implemented REST APIs and a customer-facing React interface.
- Demonstrated end-to-end development, database integration, and real-time data syncing.

Concurrent Mines Simulation *Java*

- Simulated the Mines of Semaphoria using Java concurrency primitives.
- Focused on thread synchronization and system resource coordination in a complex multi-agent simulation.
- Showcased ability to model and implement concurrent systems.

Full Stack Open Projects *JavaScript, Node.js, React, Docker*

- Completed Parts 0–13 of the Full Stack Open course, covering modern web development, CI/CD, containerization, and databases.
- Built and deployed multiple full-stack apps using modern tools and best practices.

Monte Carlo Tree Search Tetress Agent *Python*

- Developed an AI agent using Monte Carlo Tree Search to optimize gameplay strategy in Tetress.
- Demonstrated strong algorithmic thinking, AI planning, and heuristic optimization.

SKILLS

Programming Languages: Java (Proficient), Python, (Proficient), C (Proficient), JavaScript (Basic), Haskell (Intermediate), TypeScript (Basic), Bash (Intermediate)

Frameworks & CS Skills:

- Object-Oriented Programming (Proficient)
- Multithreading Concurrency (Intermediate)
- Data Structures & Algorithms (Proficient)
- Software Design Patterns (Intermediate)
- React.js (Intermediate)
- Node.js (Intermediate)
- REST APIs (Intermediate)

Development Tools: CI/CD (Intermediate), Git (Proficient), Docker (Basic), Jira (Basic), Maven (Basic), Linux (Intermediate)

Databases: MySQL (Intermediate), MongoDB (Intermediate), MS Access, MySQL (Intermediate)

OTHERS

Achievements:

- Sixth Place in AllUni: ANZ Competitive Programming Division B
- Recipient of the IEM Gold Medal Award for being the best final-year engineering student at Curtin University Malaysia
- Recipient of Curtin Malaysia Scholarship, Engineering and IT Graduate Scholarship, and John Balfour's Memorial Scholarship
- First Place in the IEM Quiz Bowl
- Speaker & Emcee for World Speech Day 2016 and 2017

Certifications: Full Stack Open Course (2023), CCNA: Introduction to Networks

Leadership & Volunteering:

- Vice President of the Institute of Engineers Malaysia Curtin University Student Section (IEMSC)
- President & Treasurer of Interact Club
- President of Gavel Club

Publications: Second-order Derivative Optimization Methods in Deep Learning Neural Networks

Languages: English (fluent), Mandarin (fluent), Malay (fluent), Cantonese (fluent)

References available on request