

Ming Chong Lim

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Work Experience

DRW

Singapore

Quantitative Developer

Oct 2025 - Present

- Extended a Python compute-graph framework with C++ bindings (nanobind), adding cycle detection, benchmarking, GDB debugging, and improved Python typing; achieved 2–20× speedup on graph operations
- Extended a real-time pricing and execution-parameter engine to support China markets, integrating market data, trader signals, position/locate feeds, and static reference data; also supported feature requests from crypto and long-short rebalancing desks
- Built a Hyperliquid liquidation monitor (Dash + Redis) tracking 20k wallets with distance-to-liquidation metrics + liquidation heatmaps
- Built an internal Slack support bot using the Claude agent SDK with semantic search over 8 codebases, Bloomberg field knowledge, and MCP-gated access to live logs and data streams
- Built a fault-tolerant intraday fill ingestion pipeline over TCP websocket with SOD-replay-based restart recovery, ensuring consistent live position state across disconnects
- Reduced CI build times by 20% via build-environment caching and compression tuning

DSO National Laboratories

Singapore

Software/Cybersecurity Engineer

Aug 2024 - Sep 2025

- Low-level modifications of QEMU/KVM source code to support Intel Processor Trace and other functionalities
- Developed a Ghidra plugin to perform Struct and Enum recovery from disassembled code

DRW

Singapore

Quantitative Developer Intern

May 2024 - Aug 2024

- Parallelized several parts of a Python code base used to support Quantitative Researchers, increasing scalability and reducing latency by 30%
- Found and fixed a high-latency-impact, low-reproducibility bug that occurred in production
- Developed a framework for regression testing and reproducing production bugs in a semi-realistic setting

Defence Science and Technology Agency

Singapore

Software Engineer Intern

Jan 2023 - Jun 2023

- Optimized a C++ drone tracking software by rewriting and parallelising the code base with the help of profiling tools, speeding it up by 50%
- Extended a large open-source drone control software, QGroundControl, to link with existing company software and to achieve custom fine-grained control over the company's drones, ultimately realizing a production-ready solution

Education

Carnegie Mellon University

Pittsburgh, PA

Master of Science in Machine Learning

Dec 2024

- GPA:** 4.07/4.00
- Relevant coursework:** 10-617 Intermediate Deep Learning, 10-715 Advanced Introduction to Machine Learning, 10-725 Convex Optimization (*also served as a teaching assistant*), 36-705 Intermediate Statistics, 15-642 Machine Learning Systems, 16-726 Learning-Based Image Synthesis, 16-720 Computer Vision, 10-708 Probabilistic Graphical Models, 10-718 Machine Learning in Practice

National University of Singapore

Singapore

Bachelor of Computing in Computer Science with Honours

Aug 2023

- GPA:** 4.88/5.00 (3.92/4.00). **Dean's list:** AY2021/2022 Semester 1 and AY2020/2021 Semester 1
- Top student for 3 modules:** CS4243 Computer Vision and Pattern Recognition among 156 students, CS2103T Software Engineering among 338 students, and CS2106 Introduction to Operating Systems among 403 students
- Teaching assistant:** CS2109S Introduction to AI and Machine Learning, CS2040S Data Structures and Algorithms, CS2103T Software Engineering, CS2106 Introduction to Operating Systems, CS2030 Programming Methodology II, CS3241 Computer Graphics

Honors & Awards

2022 **1st Place**, Meta Global Hackathon, 3255 participants

Virtual

2021 **1st Place**, Citi HackOverflow

Singapore

2020 **2nd Place**, BrainHack Today I Learned

Singapore

Research

VisualWebArena [\[link\]](#)

Co-author

- A benchmark for evaluating multimodal web agents on realistic visually grounded tasks

Skills

Programming Languages Python, Java, C/C++, Javascript/Typescript, Rust

Frameworks JavaFX, React, Vue.js, Ionic, Kivy, JQuery, HTML5, CSS3/SCSS

Machine Learning + Tools PyTorch, TensorFlow, Scikit-Learn, OpenCV, NumPy, Pandas, Polars, PostgreSQL, Docker, Git, Regex