Sherman Lim

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EDUCATION

Carnegie Mellon University — Pittsburgh, PA
PhD in Computer Science — Aug 2025 - Present

National University of Singapore (NUS) — Singapore
Bachelor of Computing (Computer Science) with Highest Distinction — Aug 2019 - Jan 2023

- GPA: 4.88 out of 5.00
- Thesis: Congestion Control Speciation in QUIC
- Advisor: Prof. Ben Leong
- Specializations: Parallel Computing, Networking & Distributed Systems, Algorithms & Theory

PUBLICATIONS

Ayush Mishra, **Sherman Lim**, and Ben Leong. 2022. *Understanding Speciation in QUIC Congestion Control.* In Proceedings of the 22nd ACM Internet Measurement Conference (IMC '22). Association for Computing Machinery, New York, NY, USA, 560–566. `https://dl.acm.org/doi/10.1145/3517745.3561459`

EXPERIENCE

National University of Singapore — Singapore
Research Assistant — Apr 2025 - Jul 2025
Advisors: Prof. Jialin Li and Prof. Qizhen Zhang (University of Toronto)

- Developed a DPU (data processing unit) application to accelerate memory-disaggregated data systems via improved data prefetching.

Jump Trading — Singapore
Software Engineer — Jan 2023 - Feb 2025

- Built low-latency systems in C++ for high-frequency trading applications.
- Designed and implemented an improved low-latency inter-process communication solution.
- Led the development of critical software in many domains, including risk management, market data consumption, order submissions, software interfacing with FPGAs, and software for embedded programming environments.
- Mentored a summer intern: scoped out the project and guided the intern.

National University of Singapore — Singapore
Research Assistant — Jan 2021 - Nov 2022
Advisor: Prof. Ben Leong

- Conducted measurement study to evaluate QUIC stacks' implementations of standard TCP congestion control algorithms (CCAs).
- Developed QUICbench, a QUIC CCA benchmarking tool, and used it to show that current QUIC CCAs do not conform to the standard. Identified causes of QUIC CCAs' non-conformance.

Jump Trading — Singapore
Software Engineer Intern — May 2022 - Jul 2022

- Designed and implemented a C++ test framework that markedly improved live testing of our order submission system, which identified serious bugs and became part of our release process.

ByteDance — Singapore
Software Engineer Intern — May 2021 - Jul 2021

- Developed Java database driver library for a data warehouse based on the open-source ClickHouse.

TEACHING EXPERIENCE

Teaching Assistant, CS3210 Parallel Computing, NUS — Fall 2022

Teaching Assistant, CS2106 Introduction to Operating Systems, NUS — Spring 2022

Teaching Assistant, CS2040S Data Structures & Algorithms, NUS — Spring 2021

Teaching Assistant, CS2040S Data Structures & Algorithms, NUS — Fall 2020

AWARDS

NUS Merit Scholarship, NUS 2019 - 2023
Full-ride, merit-based scholarship for undergraduate study at NUS.

Outstanding Undergraduate Researcher Prize (Individual), NUS 2022
Annual award that recognizes top undergraduate researchers in NUS.

Dean's List, NUS School of Computing 2020 - 2022
Awarded in Fall 2020, Fall 2021, Spring 2022, and Fall 2022.

USP Honor Roll, NUS University Scholars Program Fall 2020
Award for exemplary performance in the multidisciplinary program focused on core academic skills.

COURSEWORK PROJECTS

CS4212 Compiler Design, NUS Fall 2022
- Built a compiler in OCaml to compile a subset of C to x86 assembly. Awarded Top Student.

CS4223 Multi-core Architectures, NUS Fall 2022
- Designed and implemented a software simulator for a multi-core system with cache coherence.

CS3203 Software Engineering Project, NUS Spring 2022
- Led team of 6 to implement a C++ tool for static program analysis (≈10,000 lines of code).

CS3216 Software Product Engineering for Digital Markets, NUS Fall 2021
- Ideated, developed, and marketed a social network app in a team of 4. Implemented web backend.
- Won 1st Place in the 19th School of Computing Term Project Showcase (STePS) for the app.