Sherman Lim

shermanlim@cmu.edu https://www.shermanjlim.com

EDUCATION

Carnegie Mellon University Pittsburgh, PA
PhD in Computer Science Aug 2025 - Present
- Advisors: Prof. Greg Ganger and Prof. George Amvrosiadis

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.