Jiasheng (Jason) Hu

jasonhu@cs.toronto.edu Homepage: jasonhu.site

I am a 2nd year PhD student in the department of Computer Science at University of Toronto, a member of Far Data Lab, and supervised by Prof. Qizhen Zhang. My research interests mainly lie in networks and distributed data processing systems, as well as their intersection with related applications and evolving hardware. I am generally interested in optimizing large scale and cloud native data systems.

EDUCATION

PhD Candidate in Computer Science, University of Toronto

September 2023 – Present

2nd Year PhD Candidate @ Far Data Lab, supervised by Prof. Qizhen Zhang.

BEng in Computer Science, First Class Honours, University of Edinburgh

September 2019 – May 2023

Honours Project: Homa transport protocol with zero-copy networking under Linux

RESEARCH & PUBLICATION

DPDPU: Data Processing with DPUs

CIDR 2025

Jiasheng Hu, Philip A. Bernstein, Jialin Li, Qizhen Zhang

DDS: DPU-optimized Disaggregated Storage

VLDB 2024

Qizhen Zhang, Philip Bernstein, Badrish Chandramouli, <u>Jason Hu</u>, Yiming Zheng

Combining Homa protocol with zero-copy networking (code)

September 2022 - March 2023

Honours project, supervised by Prof. Michio Honda @ University of Edinburgh. Incorporating the Homa transport protocol in Linux Kernel, such as NVMe-oF and sendpage API; evaluating performance benefits of Homa for applications, such as gRPC and Redis.

ReFabric: Robotic system for automated textile sorting (code)

January - May, 2022

System Design Project @ University of Edinburgh. Prizes won: Best Overall Project & Most Likely To Have A Positive Impact. Automated system for sorting textiles according to colors and materials, using machine learning models with camera images and infrared sensors.

TEACHING EXPERIENCES

Teaching Assistant and Volunteer Mentor at University of Edinburgh

September 2021 - April 2023

• Introduction to Computation, System Design Project

Teaching Assistant at University of Toronto

May 2024 - present

• Introduction to Databases, Introduction to Computer Programming

VOLUNTEERING AND SERVICES

- Game Dev Society @ University of Edinburgh: organizing game jam events, industry talks etc.
- Tutor of Programming Club @ University of Edinburgh: teaching introductory computer programming, participating in various programming contests.
- Member of a non-profit translation group, including developing **InaSub**: Prototype of an open-source and cross-platform collaborative subtitling tool (<u>link</u>).