

Wenxue Li

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RESEARCH INTERESTS

I am broadly interested in datacenter networking and distributed systems, with particular focuses on network protocols, high-speed networking, and networked system for AI.

EDUCATION

Hong Kong University of Science and Technology, Hong Kong SAR *Sept. 2021 - Present*
Ph.D. Candidate in Computer Science and Engineering
Advisor: Prof. Kai Chen

Zhejiang University, Hangzhou, China *Sept. 2016 - July 2021*
Bachelor Degree in Electronic Science and Technology

PUBLICATIONS

* indicates co-first authors

Conference Publications

[C7] **Wenxue Li**, Xiangzhou Liu, Yunxuan Zhang, Zihao Wang, Wei Gu, Tao Qian, Gaoxiong Zeng, Shoushou Ren, Xinyang Huang, Zhenghang Ren, Bowen Liu, Junxue Zhang, Bingyang Liu, Kai Chen. [Revisiting RDMA Reliability for Lossy Fabrics](#). In the 39th annual conference of the ACM Special Interest Group on Data Communication (**SIGCOMM**), Coimbra, Portugal, September 8-11, 2025.

[C6] Bowen Liu, Xinyang Huang, Qijing Li, Zhuobin Huang, Yijun Sun, **Wenxue Li**, Junxue Zhang, Ping Yin, Kai Chen. ["CEO: A Cache-Efficient Network I/O Architecture for NIC-CPU Data Paths."](#) In the 39th annual conference of the ACM Special Interest Group on Data Communication (**SIGCOMM**), Coimbra, Portugal, September 8-11, 2025.

[C5] Jinbin Hu*, **Wenxue Li***, Xiangzhou Liu, Junfeng Wang, Bowen Liu, Ping Yin, Jianxin Wang, Jiawei Huang, Kai Chen. ["FLB: Fine-grained Load Balancing for Lossless Datacenter Networks."](#) In the 2025 USENIX Annual Technical Conference (**ATC**), Boston, MA, USA, July 2025.

[C4] Zhenghang Ren, Yuxuan Li, Zilong Wang, Xinyang Huang, **Wenxue Li**, Kaiqiang Xu, Xudong Liao, Yijun Sun, Bowen Liu, Han Tian, Junxue Zhang, Mingfei Wang, Zhizhen Zhong, Guyue Liu, Ying Zhang, Kai Chen. ["Enabling Efficient GPU Communication over Multiple NICs with FuseLink."](#) In the 19th USENIX Symposium on Operating Systems Design and Implementation (**OSDI**), Boston, MA, USA, July 2025.

[C3] **Wenxue Li***, Junyi Zhang*, Yufei Liu, Gaoxiong Zeng, Zilong Wang, Chaoliang Zeng, Pengpeng Zhou, Qiaoling Wang, Kai Chen. ["Cepheus: Accelerating Datacenter Applications with High-Performance Roce-Capable Multicast."](#) In the 30th IEEE International Symposium on High-Performance Computer Architecture (**HPCA**), Edinburgh, Scotland, March 2024.

[C2] **Wenxue Li**, Chaoliang Zeng, Jinbin Hu, Kai Chen. ["Towards Fine-grained and Practical Flow Control for Datacenter Networks."](#) In the 31st IEEE International Conference on Network Protocols (**ICNP**), Reykjavik, Iceland, October 2023.

[C1] Zilong Wang, Layong Luo, Qingsong Ning, Chaoliang Zeng, **Wenxue Li**, Xinchun Wan, Peng Xie, Tao Feng, Ke Cheng, Xiongfei Geng, Weicheng Ling, Kejia Huo, Pingbo An, Kui Ji, Shideng Zhang, Bin Xu, Ruiqing Feng, Tao Ding, Kai Chen, Chuanxiong Guo. ["SRNIC: A Scalable Architecture for RDMA NICs."](#) In the 20th USENIX Symposium on Networked Systems Design and Implementation (**NSDI**), Boston, MA, USA, April 2023.

Journal Publications

[J1] Wenxue Li, Chaoliang Zeng, Jinbin Hu, Kai Chen. [FlowSail: Fine-grained and Practical Flow Control for Datacenter Networks](#). In IEEE/ACM Transactions on Networking (ToN), 2024

Workshop Publications

- [W4] Xiangzhou Liu, Wenxue Li, Kai Chen. [Enabling Packet Spraying over Commodity RNICs with In-Network Support](#). In 7th Asia-Pacific Workshop on Networking (APNet), Shanghai, China, August 7-8, 2025.
- [W3] Yuxuan Li, Zhenghang Ren, Wenxue Li, Xiangzhou Liu, Kai Chen. [Congestion Control for AI Workloads with Message-Level Signaling](#). In 7th Asia-Pacific Workshop on Networking (APNet), Shanghai, China, August 7-8, 2025.
- [W2] Wenxue Li, Xiangzhou Liu, Yuxuan Li, Yilun Jin, Han Tian, Zhizhen Zhong, Guyue Liu, Ying Zhang, Kai Chen. [Understanding Communication Characteristics of Distributed Training](#). In 8th Asia-Pacific Workshop on Networking (APNet), Sydney, Australia, August 2024.
- [W1] Wenxue Li, Chaoliang Zeng, Jinbin Hu, Kai Chen. [Scaling Switch-driven Flow Control with Aquarius](#). In the 7th Asia-Pacific Workshop on Networking (APNet), Hong Kong SAR, June 2023.

EXPERIENCES

Research Intern, Huawei Hong Kong Research Center Hong Kong SAR	June 2024 - Present
Software Engineer Intern, ByteDance Hangzhou, China	July 2020 - June 2021

SKILLS

Programming C/C++, Python, Golang, P4
Tools NS3, OpenMPI, Pytorch, L^AT_EX
Languages Mandarin (native), English (fluent)

ACADEMIC SERVICES

Journal Reviewer ACM Transactions on Privacy and Security (TOPS)	2024
Teaching Assistant	
COMP3511 Operating System	2025 Spring
COMP4621 Cloud Computing and Big Data Systems	2022 Spring
COMP3511 Operating System	2022 Fall
COMP5621 Computer Networks	2023 Fall

HONORS

HPCA 2024 Travel Grants	2024
HKUST Research Travel Grants	2023 Fall, 2024 Winter, 2024 Fall
Postgraduate Studentship, HKUST	2021-2025
First-class Scholarship, ZJU	2019
Zhejiang Daily - Alibaba New Media Scholarship, ZJU	2019
Outstanding Student Leader, ZJU	2018