Qiang Su

PH.D. CANDIDATE · COMPUTER SCIENCE

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Education

City University of Hong Kong   *Hong Kong SAR, China*
DOCTOR OF PHILOSOPHY   *9/2019 - 12/2023*
- Advisor: Prof. Jason Xue & Prof. Hong Xu

Northeastern University   *Shenyang, China*
BACHELOR OF ENGINEERING   *10/2014 - 6/2018*
- Computer Science and Technology
- GPA: 4.1146/5.0, Rank: 6/256

Work Experience

2023   **Visiting Researcher**, Boston University, Advisor: Prof. Alan Zaoxing Liu

2022   **Research Intern**, Microsoft Research Asia, Advisor: Dr. Zhixiong Niu & Dr. Yongqiang Xiong

2018-2019   **Research Assistant**, City University of Hong Kong, Advisor: Prof. Hong Xu

Publication

PREPRINTS

Tianle Zhong, Jiechen Zhao, Xindi Guo, **Qiang Su***, Geoffrey Fox*. RINAS: Training with Dataset Shuffling Can Be General and Fast. 2023. (*Corresponding author.)

Qiang Su, Shaofeng Wu, Zhixiong Niu, Ran Shu, Peng Cheng, Yongqiang Xiong, Chun Jason Xue, Zaoxing Liu, Hong Xu. Meili: Enabling SmartNIC as a Service in the Cloud. 2023.

CONFERENCE

Tianle Zhong, Jiechen Zhao, Xindi Guo, **Qiang Su***, Geoffrey Fox*. RINAS: Training with Dataset Shuffling Can Be General and Fast. **Arxiv preprint**, 2023. (*Corresponding author.)

Qiang Su, Shaofeng Wu, Zhixiong Niu, Ran Shu, Peng Cheng, Yongqiang Xiong, Chun Jason Xue, Zaoxing Liu, Hong Xu. Meili: Enabling SmartNIC as a Service in the Cloud. **Arxiv preprint**, 2023.

Hongming Huang, Peng Wang, **Qiang Su**, André Brinkman, Hong Xu, Chun Jason Xue. Palantir: Hierarchical Similarity Detection for Post-Deduplication Delta Compression. To appear in **ACM ASPLOS**, 2024.

Jiamin Li, **Qiang Su**, Yitao Yang, Yimin Jiang, Cong Wang, Hong Xu. Adaptive Gating in Mixture-of-Experts based Language Models. **EMNLP**, 2023.

Qiang Su, Chuanwen Wang, Zhixiong Niu, Ran Shu, Peng Cheng, Yongqiang Xiong, Dongsu Han, Chun Jason Xue, Hong Xu. PipeDevice: A Hardware-Software Co-Design Approach to Intra-Host Container Communication. **ACM CoNEXT**, 2022.

Zhixiong Niu, Hong Xu, Peng Cheng, **Qiang Su**, Yongqiang Xiong, Tao Wang, Dongsu Han, Keith Winstein. NetKernel: Making Network Stack Part of the Virtualized Infrastructure. **USENIX ATC**, 2020.

JOURNAL

Qiang Su, Zhixiong Niu, Ran Shu, Peng Cheng, Yongqiang Xiong, Dongsu Han, Chun Jason Xue, Hong Xu. Low-Overhead Intra-Host Container Communication with Hardware Offloading. In submission to **IEEE/ACM ToN**, 2023.

Zhixiong Niu, **Qiang Su**, Peng Cheng, Yongqiang Xiong, Dongsu Han, Keith Winstein, Chun Jason Xue, Hong Xu. NetKernel: Making Network Stack Part of the Virtualized Infrastructure. **IEEE/ACM ToN**, 2021.

WORKSHOP

Qiang Su, Shaofeng Wu, Zhixiong Niu, Ran Shu, Peng Cheng, Yongqiang Xiong, Chun Jason Xue, Zaoxing Liu, Hong Xu. Meili: Towards SmartNIC as a Service. **ACM SIGCOMM Demos and Posters**, 2023.

Qiang Su, Chuanwen Wang, Zhixiong Niu, Ran Shu, Peng Cheng, Yongqiang Xiong, Dongsu Han, Chun Jason Xue, Hong Xu. PipeDevice: A Hardware-Software Co-Design Approach to Intra-Host Container Communication. **ACM SIGCOMM Demos and Posters**, 2022.

Honor & Award

2019-2023	**Postgraduates Studentship**, City University of Hong Kong
2022	**Research Tuition Scholarship**, City University of Hong Kong
2017	**Excellent Student Leader**, Northeastern University
2016	**National Scholarship**, Northeastern University
2016	**Honorable Mention**, The Interdisciplinary Contest in Modeling
2015	**Pacesetter of Excellent Student**, Northeastern University

Talks

Fall 2023. *Network Stack in the Cloud*. Invited talk: Central South University, Changsha, China.

Spring 2023. *Towards SmartNIC as a Service*. Invited talk: Northeastern University, Boston, USA.

Teaching Experience

CS5222	**Computer Networks & Internets**, Teaching Assistant, Fall 2023/2022/2021
CS3402	**Database Systems**, Teaching Assistant, Spring 2023/2021
CS1302	**Introduction to Computer Programming**, Teaching Assistant, Fall 2020
CS1102	**Introduction to Computer Studies**, Teaching Assistant, Spring 2020
CS2311	**Computer Programming**, Teaching Assistant, Fall 2019

Service

Conference	**EMNLP 2023**, TPC
Journal	**ToN 2022-2023**, Reviewer
Artifact	**EuroSys 2024, SOSP 2023, SIGCOMM 2023, OSDI 2022, ATC 2022, CoNEXT 2022**, Committee Member