ChonLam Lao

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SEC 4.431, 150 Western Ave, Allston, MA 02134

Me

Second-year PhD Student in Harvard interested in Networked Systems, ML Systems, programmable hardware, advised by Prof. Minlan Yu and Prof. Aditya Akella.

Education

Harvard University, Boston (advised by Prof. Minlan Yu and Prof. Aditya Akella) 2021 - Present
PhD of Computer Science, Year 2

Tsinghua University, Beijing (advised by Prof. Wenfei Wu) 2018 - 2021
Master of Computer Science
Outstanding Graduates, 78 of 5650 $\approx$ 1.38%
Outstanding Thesis Award, "ATP: In-network Aggregation for Multi-tenant Learning"

National Cheng Kung University, Taiwan 2015 - 2018
Bachelor of Computer Science & Information Engineering
2nd place Outstanding Graduation Project
GPA 3.91/4.3, Top 10% ranking

Work Experiences

Student Researcher @ Google, remote MA Sep 2022 - Present
Accelerating distributed training by network scheduling.

Research Intern @ Google, Sunnyvale CA Jun 2022 - Sep 2022
Accelerating distributed training by network scheduling.

Visiting Scholar @ University of Wisconsin–Madison, Madison WI Sep 2019 - Feb 2020
Built an in-network aggregation service to accelerate distributed training in multi-tenant multi-rack networks with programmable switches.

Research Assistant @ The University of Hong Kong, Hong Kong S.A.R. Jun 2017 - Sep 2017
Implemented Machine Learning model (CNN) to improve the accuracy of variant calling software, doing experiments and benchmarking.

Publications

- "A Generic Service to Provide In-network Aggregation for Key-value Streams", Yongchao He, Wenfei Wu, Yanfang Le, Ming Liu, **ChonLam Lao**, ASPLOS 2023, Vancouver, Canada.
- "ATP: In-network Aggregation for Multi-tenant Learning", **ChonLam Lao**, Yanfang Le, Kshiteej Mahajan, Yixi Chen, Wenfei Wu, Aditya Akella, Michael Swift, NSDI 2021, Boston, MA, USA. **(Best Paper Award)**
- "Efficient Data-Plane Memory Scheduling for In-Network Aggregation", Hao Wang, Yuxuan Qin, **ChonLam Lao**, Yanfang Le, Wenfei Wu, Kai Chen, arXiv 2021.
- "Detecting DDoS Attack in Software-Defined Network (SDN) through Convolutional Neural Network", **ChonLam Lao**, K.-Y. Liow, and M.-H. Tsai, 22th Mobile Computing Conference, Kaosiung, August 2017 (Chinese Publication)

Awards and Achievements

Achievements

- Outstanding Graduates at Tsinghua University
- Outstanding Thesis Award at Tsinghua University
- Top 6% in 2017 Taiwan Collegiate Programming Examination
- Bronze Prize of 2017 ACM-ICPC Asia Taiwan Regional Contest
- Silver Reward of 2014 Macao Olympiad in Informatics (MOI)
- Second Prize of 2013 National Olympiad in Informatics in Province (NOIP)
- Silver Reward of 2013 Macao Olympiad in Informatics (MOI)
- Second Prize of 2012 National Olympiad in Informatics in Province (NOIP)
- Silver Reward of 2012 Macao Olympiad in Informatics (MOI)

Awards

- The Baogang Scholarship (2020 - 2021)
- First price of Tsinghua University Scholarship MO/HK/TW (2018 - 2020)
- Macau Government Scholarship for Master Student (2018 - 2020)
- Taiwan Government Scholarship for Oversea Student (2015 - 2018)
- Macau Government Scholarship (2015 - 2018)

Academic Services & Talks

- Gave talks at SIGMETRICS'21 (Highlights beyond SIGMETRICS)
- Reviewer of IEEE/ACM Transactions on Networking (TON)
- Recognized NSDI'22 external reviewer

Teaching Experiences

- Security Technologies in Cyberspace, Tsinghua University, 2018
- Advanced Competitive Programming, National Cheng Kung University 2017, CSIE7557

Selected Press

- Tsinghua University - received Best Paper Award at NSDI 2021 (CN|EN)

Other Links

- Github - https://github.com/laochonlam
- Personal website - https://laochanlam.com/