CHONLAM LAO

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ME

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

WORK EXPERIENCE

Student Researcher @ Google, Remote in 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.

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

Selected Press

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

ACADEMIC SERVICES & TALKS

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

PUBLICATIONS

- "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

- Student Travel Grant NSDI'21
- 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)

TEACHING EXPERIENCES

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

OTHER LINKS

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