# 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.

#### 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, Sunnyvale CA

Jun 2022 - Present

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

- "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

- $\bullet$  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/