Lei Yang

Ph.D. student in Computer Science at Massachusetts Institute of Technology. Research interests: computer networks, operating systems, distributed systems, blockchain.

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Education

Massachusetts Institute of Technology, Cambridge, Massachusetts USA
Ph.D., Computer Science **exp. May 2024**
M.S., Computer Science **exp. May 2020**

Peking University, Beijing, P.R. China
B.S., Computer Science **June 2018**

Honors and Awards

- Graduated summa cum laude, Peking University
- Ranked 4th in Student Cluster Competition in SC18 conference, 6th in SC16
- Second Class Outstanding Freshman Scholarship, Peking University
- May Fourth Scholarship, Peking University
- Google Summer of Code 2015 Student Participant

Academic Experience

Massachusetts Institute of Technology, Cambridge, Massachusetts USA
Graduate Student **September 2018 - present**
Includes current Ph.D. research, Ph.D. and Masters level coursework and research projects. Advisor: Prof. Mohammad Alizadeh.

Peking University, Beijing, P.R. China
Research Assistant **February 2015 - June 2018**
Joined Center for Energy-efficient Computing and Applications and performed research in computer systems, wireless networks, and high performance computing. Advisor: Prof. Yun Liang and Prof. Chenren Xu.

Teaching Assistant, Computer Networks **September - December 2017**
Mentored two student groups in a research-based course project on wireless communication.
Teaching Assistant, Compiler Technology **February - June 2018**
Graded student homework, prepared and graded two exams, and hosted recitations.
Team Leader, Student Cluster Competition **October 2015 - June 2018**
Founded a team and competed in the Student Cluster Competition of SC16 and SC18 conferences. Organized regular training, discussion, and recrutiment.

Publications

2020 [1] Sivaraman, Vibhaalakshmi, Venkatakrishnan, Shaileshh Bojja, Ruan, Kathleen, Negi, Parimarjan, **Yang, Lei**, Mittal, Radhika, Fanti, Giulia, and Alizadeh, Mohammad. 2020b. "High Throughput Cryptocurrency Routing in Payment Channel Networks". In: *17th USENIX Symposium on Networked Systems Design and Implementation, NSDI 2020, Santa Clara, CA, February 25-27, 2020*. Ed. by Ranjita Bhagwan and George Porter. USENIX Association. URL: https://www.usenix.org/conference/nsdi20.

2019 [2] Josephson, Colleen, **Yang, Lei**, Zhang, Pengyu, and Katti, Sachin. 2019b. "Wireless computer vision using commodity radios". In: *Proceedings of the 18th International Conference on Information Processing in Sensor Networks, IPSN 2019, Montreal, QC, Canada, April 16-18, 2019*. Ed. by M. Rasit Eskicioglu, Luca Mottola, and Bodhi Priyantha. ACM, pp. 229–240. ISBN: 978-1-4503-6284-9. DOI: 10.1145/3302506.3310403. URL: https://doi.org/10.1145/3302506.3310403.

2018 [3] Xu, Chenren, **Yang, Lei**, and Zhang, Pengyu. 2018a. "Practical Backscatter Communication Systems for Battery-Free Internet of Things: A Tutorial and Survey of Recent Research". In: *IEEE Signal Process. Mag.* 35.5, pp. 16–27. DOI: 10.1109/MSP.2018.2848361. URL: https://doi.org/10.1109/MSP.2018.2848361.

[4] Fu, Zhenxin, **Yang, Lei**, Hou, Wenbin, Li, Zhuohan, Wu, Yifan, Cheng, Yihua, Wang, Xiaolin, and Liang, Yun. 2018b. "Student Cluster Competition 2017, Team Peking University: Reproducing vectorization of the Tersoff multi-body potential on the Intel Broadwell architecture". In: *Parallel Computing* 78, pp. 28–32. DOI: 10.1016/j.parco.2018.06.010. URL: https://doi.org/10.1016/j.parco.2018.06.010.

2017 [5] **Yang, Lei**, Li, Yilong, Fu, Zhenxin, Li, Zhuohan, Hou, Wenbin, Wu, Haoze, Wang, Xiaolin, and Liang, Yun. 2017. "ParConnect reproducibility report". In: *Parallel Computing* 70, pp. 22–26. DOI: 10.1016/j.parco.2017.07.006. URL: https://doi.org/10.1016/j.parco.2017.07.006.