

Zili Meng

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Education Experience

- PhD Student** **Tsinghua University**
2019 – 2024
 - Institute for Network Science and Cyberspace*
Advisor: Prof. Mingwei Xu.
- Bachelor of Engineering** **Tsinghua University**
2015 – 2019
 - Department of Electronic Engineering*
Advisor: Prof. Jun Bi. *Outstanding Graduates (2%). Minor in Business Administration*
- High School Graduate** **Northeast Yucai School, Shenyang**
2010 – 2015
 - Gifted Education Division*

Work Experience

- Research Assistant** **Tsinghua University**
June 2019 - Now
 - Network Architecture Laboratory & Routing Group*
Advisor: Prof. Mingwei Xu
- Research Assistant** **Tsinghua University**
October 2016 - May 2019
 - Network Architecture Laboratory*
Advisor: Prof. Jun Bi
- Research Assistant** **Massachusetts Institute of Technology**
July 2018 - August 2018
 - Networks and Mobile Systems Group*
Advisor: Prof. Mohammad Alizadeh
- Research Assistant** **Tsinghua University**
June 2016 - February 2017
 - Human-Machine-Interface Laboratory*
Advisor: Prof. Milin Zhang

Research

Research Interests and Selected Publications.....

- Machine Learning for Networked Systems (NetAI):
- Decima [SIGCOMM'19]: DRL for cluster job scheduling.
 - PiTree [ACMMM'19]: Practicality of sophisticated ABR algorithms.
- Network Hardware Acceleration (NetX):
- GEN [APNet'18]: GPU for NFV and its elasticity.
- Network Function Virtualization (NFV):
- MicroNF [JSAC'19]: NFV modularization and consolidation.
 - OFM [JSAC'18, IWQoS'18]: Optimized flow migration for NFV.
 - PAM [SIGCOMM'18 SRC]: Inter-device push-aside migration.

Conference Papers.....

- H. Mao, M. Schwarzkopf, S. Venkatakrisnan, **Zili Meng**, M. Alizadeh, "Learning Graph-based Cluster Scheduling Algorithms". Accepted by *ACM SIGCOMM Conference (SIGCOMM 2019)*, Beijing, China,

August 19-24, 2019.

- **Zili Meng**, J. Chen, Y. Guo, C. Sun, H. Hu, M. Xu, "PiTree: Practically Implementing ABR Algorithms Using Decision Trees". Accepted by *ACM International Conference on Multimedia (ACMMM 2019)*, Nice, France, October 21-25, 2019.
- C. Sun, J. Bi, **Zili Meng**, X. Zhang, H. Hu, "OFM: Optimized Flow Migration for NFV Elasticity Control", In *IEEE/ACM International Symposium on Quality of Service (IWQoS 2018)*, Banff, Alberta, Canada, June 4-6, 2018.
- **Zili Meng**, J. Bi, H. Wang, C. Sun, H. Hu, "CoCo: Compact and Optimized Consolidation of Modularized Service Chains in NFV", In *IEEE International Conference on Communications (ICC 2018)*, Kansas City, MO, USA, May 20-24, 2018.

Journal Papers.....

- **Zili Meng**, J. Bi, H. Wang, C. Sun, H. Hu. "MicroNF: An Efficient Framework for Enabling Modularized Service Chains in NFV", *IEEE Journal on Selected Areas in Communications (JSAC)*, Vol. 37, No. 8, pp1851-1865, 2019.
- C. Sun, J. Bi, **Zili Meng**, T. Yang, X. Zhang, H. Hu. "Enabling NFV Elasticity Control with Optimized Flow Migration", *IEEE Journal on Selected Areas in Communications (JSAC)*, Vol. 36, No. 10, pp2288-2303, 2018.

Workshop/Poster/Demo Papers.....

- **Zili Meng**, J. Bi, C. Sun, S. Wang, M. Wang, H. Hu, "PAM: When Overloaded, Push Your Neighbor Aside!", In *ACM SIGCOMM Conference (SIGCOMM 2018)*, poster paper, Budapest, Hungary, August 20-25, 2018. [1st Place in SIGCOMM 2018 SRC]
- **Zili Meng**, J. Bi, C. Sun, A. Xu, H. Hu, "PRAM: Priority-aware Flow Migration Scheme in NFV Networks", In *ACM Symposium on SDN Research (SOSR 2017)*, poster paper, Santa Clara, CA, USA, April 3-4, 2017.
- Z. Zheng, J. Bi, C. Sun, H. Yu, H. Hu, **Zili Meng**, S. Wang, K. Gao, J. Wu, "GEN: A GPU-Accelerated Elastic Framework for NFV". In *Asia-Pacific Workshop on Networking (APNet 2018)*, Beijing, China, August 2-3, 2018.
- M. Zhang, J. Bai, G. Li, **Zili Meng**, H. Li, H. Hu, M. Xu, "When NFV Meets ANN: Rethinking Elastic Scaling for ANN-based NFs". In *IEEE ICNP Workshop on Harnessing the Data Revolution in Networking (HDR-Nets 2019)*, Chicago, IL, USA, October 7, 2019.

Professional Services.....

- Shadow Program Committee Member (2018), ACM Internet Measurement Conference (IMC).
- Reviewer (2018, 2019), IEEE Transactions on Network and Service Management (TNSM).

Honors

Research Awards.....

- **ACM SIGCOMM 2018 Student Research Competition Gold Medal (the 1st place) (2018)**
- Tsinghua Undergraduate Future Scholar (2018)
- Tsinghua Spark Talents (2017)
- Travel Grants (SIGCOMM 2019, SIGCOMM 2018, SRC 2018, SOSR 2017)
- First Prize of National Undergraduate Physics Competition (2015)
- First Prize in the Chinese Mathematics Olympiad in Liaoning (2014)
- First Prize in the Chinese Physics Olympiad in Liaoning (2014)

Comprehensive Awards.....

- Outstanding Graduate in Beijing (2019)
- Outstanding Graduate in Tsinghua (2019)
- **Tsinghua Top Grade Scholarship (2018)**

- China National Scholarship (2016, 2018)
- Tsinghua – Cai Xiong Scholarship (2018)
- Tsinghua – Zheng Geru Scholarship (2018)
- Qualcomm Scholarship (2017)
- Jiang Nanxiang Scholarship (2017)
- Tang Lixin Scholarship (2017)

Last updated: August 25, 2019.