

孟子立

清华大学网络研究院 2019 级博士研究生



主页: <https://zilimeng.com>

邮箱: zilim@ieee.org

地址: 北京市海淀区清华大学 FIT 楼 4-204 室.

教育背景

- **博士研究生** 清华大学
 - 网络研究院 2019 - 2024
 - 导师: 徐明伟教授.
- **工学学士** 清华大学
 - 电子工程系 2015 - 2019
 - 导师: 毕军 教授. 同时辅修管理学工商管理专业
- **高中学历** 沈阳东北育才学校
 - 超常教育实验部 2010 - 2015

工作经历

- **应用研究实习生** 腾讯
 - START 创新产品中心 2020 夏天
 - 导师: 韩瑞
- **访问研究助理** 麻省理工学院
 - 网络与移动系统研究组 2018 夏天
 - 导师: Mohammad Alizadeh 教授

科研情况

研究方向与代表性工作.....

机器学习改进网络系统 (NetAI):

- **Metis** [SIGCOMM'20]: Interpreting Deep Learning-Based Networked Systems.
- **Decima** [SIGCOMM'19]: Learning Graph-based Cluster Scheduling Algorithms.
- **PiTree** [MM'19]: Practically Implementing ABR Algorithms Using Decision Trees.

网络功能虚拟化 (NFV):

- **MicroNF** [JSAC'19]: An Efficient Framework for Enabling Modularized Service Chains in NFV.
- **OFM** [JSAC'18]: Enabling NFV Elasticity Control with Optimized Flow Migration.

会议论文.....

- **Zili Meng**, M. Wang, J. Bai, M. Xu, H. Mao, H. Hu, "Interpreting Deep Learning-Based Networked Systems". In *ACM SIGCOMM Conference (SIGCOMM 2020)*, New York, NY, USA, August 10-14, 2020. [CCF-A]
- H. Mao, M. Schwarzkopf, S. Venkatakrisnan, **Zili Meng**, M. Alizadeh, "Learning Graph-based Cluster Scheduling Algorithms". In *ACM SIGCOMM Conference (SIGCOMM 2019)*, Beijing, China,

August 19-24, 2019. [CCF-A]

- **Zili Meng**, J. Chen, Y. Guo, C. Sun, H. Hu, M. Xu, “PiTree: Practically Implementing ABR Algorithms Using Decision Trees”. In *ACM International Conference on Multimedia (MM 2019)*, Nice, France, October 21-25, 2019. [CCF-A][**Oral Paper (88/936=9.4%)**]
- **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. [CCF-C]
- S. Wang, C. Sun, **Zili Meng**, M. Xu, J. Bi, Q. Huang, M. Moshref, M. Wang, J. Cao, H. Hu, T. Yang, G. Zhang, “Martini: Bridging the Gap between Network Measurement and Control Using Switching ASICs”, In *IEEE International Conference on Network Protocols (ICNP 2020)*, Spain, Madrid, October 13, 2020. [CCF-B]
- 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. [CCF-B]
- S. Wang, **Zili Meng**, C. Sun, M. Wang, M. Xu, J. Bi, T. Yang, Q. Huang, H. Hu, “SmartChain: Enabling High-Performance Service Chain Partition between SmartNIC and CPU”, In *IEEE International Conference on Communications (ICC 2020)*, Dublin, Ireland, June 7-11, 2020. [CCF-C][**ICC 2020 最佳论文奖**]

期刊论文.....

- **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. [CCF-A]
- 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. [CCF-A]

Workshop/Poster/Demo 论文.....

- **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. [**SIGCOMM 2018 学生研究竞赛第一名**]
- **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.
- J. Chen, **Zili Meng**, M. Xu, “Always Heading for the Peak When Climbing: Learning to Route with Domain Knowledge”. In *IEEE International Conference on Computer Communications (INFOCOM*

2020), poster paper, Toronto, Canada, July 6-9, 2020.

学术兼职.....

- Shadow Program Committee 成员 (2020), European Conference on Computer Systems (**EuroSys**).
- Shadow Program Committee 成员 (2018), ACM Internet Measurement Conference (**IMC**).
- 审稿人 (2018, 2019), IEEE Transactions on Network and Service Management (**TNSM**).
- 审稿人 (2019, 2020), Elsevier Computer Networks.

荣誉

代表性荣誉.....

- ACM SIGCOMM 2018 学生研究竞赛金奖 (第一名) (2018)
- IEEE ICC 2020 最佳论文奖 (2020)
- 清华大学本科生特等奖学金 (2018)
- 北京市优秀毕业生 (2019)
- 会议旅行资助 (SIGCOMM 2019, SIGCOMM 2018, SRC 2018, SOSR 2017)

研究生阶段荣誉 (2019-2024).....

- IEEE ICC 2020 最佳论文奖 (2020)
- 清华大学未来学者奖学金 (2019)
- 会议旅行资助 (SIGCOMM 2019)

本科阶段荣誉 (2015-2019).....

- 北京市优秀毕业生 (2019)
- 清华大学优秀毕业生 (2019)
- 会议旅行资助 (SIGCOMM 2018, SRC 2018, SOSR 2017)
- 清华大学本科生特等奖学金 (2018)
- ACM SIGCOMM 2018 学生研究竞赛金奖 (第一名) (2018)
- 国家奖学金 (2016, 2018)
- 清华-蔡雄奖学金 (2018)
- 清华-郑格如奖学金 (2018)
- 高通奖学金 (2017)
- 蒋南翔奖学金 (2017)
- 唐立新奖学金 (2017)
- 清华大学校团委自主科研未来学者项目负责人 (2018)
- 清华大学科创人才培养“星火计划”成员 (2017)
- 全国部分地区大学生物理竞赛一等奖 (2015)

最后更新: 2020 年 8 月 2 日.