Mengwei Xu

EECS, Peking University, China, 100871
mwx@pku.edu.cn, https://xumengwei.github.io/
Feb 2020

RESEARCH INTEREST

Computer systems, mobile computing
Recent focus: AI on mobile/edge devices, including smartphones, IoTs, etc.

EDUCATION & EXPERIENCE

PhD in Computer Science, Peking University   *Sep 2015 - Jun 2020 (expected)*
- Advisor: Prof. Gang Huang, Prof. Xuanzhe Liu

BS in Computer Science, Peking University   *Sep 2011 - Jun 2015*

Visiting Scholar, School of ECE, Purdue University   *Nov 2018 - Nov 2019*
- Advisor: Prof. Felix Xiaozhu Lin
- Funded by China Scholarship Council (CSC)

Research Intern, System Group, Microsoft Research Asia   *Mar 2015 - Mar 2016*
- Mentor: Dr. Yunxin Liu

PUBLICATIONS

[preprint] **Mengwei Xu**, Yuxin Zhao, Kaigui Bian, Gang Huang, Qiaozhu Mei, Xuanzhe Liu. *"Neural Architecture Search over Decentralized Data"* arxiv:2002.06352.

[preprint] **Mengwei Xu**, Tiantu Xu, Yunxin Liu, Xuanzhe Liu, Gang Huang, and Felix Xiaozhu Lin. *"Querying Zero-streaming Cameras"*, arxiv:1904.12342.

[MobiSys'20] **Mengwei Xu**, Xiwen Zhang, Yunxin Liu, Xuanzhe Liu, and Felix Xiaozhu Lin. *"Approximate Query Processing on Autonomous Cameras"* ACM International Conference on Mobile Systems, Applications, and Services. *Accepted to appear*

[WWW'19] **Mengwei Xu**, Jiawei Liu, Yuanqiang Liu, Felix Xiaozhu Lin, Yunxin Liu, and Xuanzhe Liu. *"A First Look at Deep Learning Apps on Smartphones"*, The Web Conference 2019.

[TMC'19] **Mengwei Xu**, Feng Qian, Mengze Zhu, Feifan Huang, Saumay Pushp, and Xuanzhe Liu. *"DeepWear: Adaptive Local Offloading for On-Wearable Deep Learning"*, IEEE Transactions on Mobile Computing 2019.

[IMWUT'18] **Mengwei Xu**, Feng Qian, Qiaozhu Mei, Kang Huang, and Xuanzhe Liu. *"DeepType: On-Device Deep Learning for Input Personalization Service with Minimal Privacy Concern"*, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies 2018.

[MobiCom'18] **Mengwei Xu**, Mengze Zhu, Yunxin Liu, Felix Xiaozhu Lin, and Xuanzhe Liu. *"DeepCache: Principled Cache for Mobile Deep Vision"*, The 24th Annual International Conference on Mobile Computing and Networking.

[IMWUT'18] Saumay Pushp, Yunxin Liu, **Mengwei Xu**, Changyoung Koh, and Junehwa Song. *"PrivacyShield: A Mobile System for Supporting Subtle Just-in-time Privacy Provisioning through Off-Screen-based Touch Gestures"*, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies.

[EuroSys'18] Liwei Guo, Tiantu Xu, **Mengwei Xu**, Xuanzhe Liu, and Felix Xiaozhu Lin. *"Power Sandbox: Power Awareness Redefined"*, Proceedings of the 13th EuroSys Conference.

[WWW'17] **Mengwei Xu**, Yun Ma, Xuanzhe Liu, Felix Xiaozhu Lin, and Yunxin Liu. "*AppHolmes: Detecting and Characterizing App Collusion among Third-Party Android Markets*", Proceedings of the 26th International World Wide Web Conference.

[TMC'17] Gang Huang, **Mengwei Xu**, Felix Xiaozhu Lin, Yun Ma, Yunxin Liu, Saumay Pushp, and Xuanzhe Liu. "*ShuffleDog: Characterizing and Adapting User-Perceived Latency of Android App*", IEEE Transactions on Mobile Computing.

[TSC'16] Xuanzhe Liu, **Mengwei Xu**, Teng Teng, Gang Huang, and Hong Mei. "*MUIT: A Domain-Specific Language and its Middleware for Adaptive Mobile Web-based User Interfaces in WS-BPEL*", IEEE Transactions on Services Computing.

HONORS & AWARDS	National Scholarship (top 8%, Ministry of Education, China), 2018/2017 Presidential Scholarship (top 5%, Peking University), 2019/2017/2016/2015 Stars of Tomorrow Internship Program (MSRA), 2016 Outstanding Gradudate of Beijing (top 1.5%, Beijing Government), 2015 Outstanding Gradudate of Peking University (top 4%, Peking University), 2015
TEACHING	As a teaching assistant, I've served many core CS courses for both undergraduates and graduates at Peking University. • Operating System Practice (Spring 2017; Fall 2016); • Distributed Machine Learning Systems (Fall 2019); • Introduction to Computing (Fall 2016; Fall 2014); • Foundations of Computer Application (Spring 2015);
ACADEMIC SERVICES	TPC Member, MobiSys Rising Stars Forum, 2019; Reviewer, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT); Reviewer, IEEE Transactions on Mobile Computing (TMC); External reviewer, WWW 2019/2018/2017; KDD 2018/2017; CIKM 2018; etc.