

Xiong Wang

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Working Experiences

2021–now **Associate professor, School of Computer and Technology, Huazhong University of Science and Technology, Wuhan.**

Education

2019–2021 **PostDoc. researcher, The Department of Computer Science and Engineering, The Chinese University of Hong Kong, Hong Kong.**

Advised by Prof. John C. S. Lui

2014–2019 **Ph.D., Information and Communication Engineering, Shanghai Jiao Tong University, Shanghai, GPA – 2.77/3.0.**

Co-advised by Prof. Xinbing Wang and Prof. Xiaoying Gan

2010–2014 **Bachelor, Electronic Information Engineering, advanced class, Huazhong University of Science and Technology, Hubei, Wuhan, GPA – 88.43/100 (Top 10%).**

Graduates with honors

Research Interest

Research Distributed Learning System, Data Center Network, Modeling and Analysis for Computer Networks, Edge Computing, Federated and Online Learning, Mobile Computing

Homepage <https://wangxionghome.github.io/> http://faculty.hust.edu.cn/xiongwang/zh_CN/index/2406760/list/index.htm

Publication

Journal

- **Xiong Wang**, R. Jia, L. Fu, H. Jin, X. Tian, X. Gan, and X. Wang, "Online Spatial Crowdsensing with Expertise-aware Truth Inference and Task Allocation," *IEEE Journal on Selected Areas in Communications*, vol. 40, no. 1, pp. 412–427, 2022.
- **Xiong Wang**, R. Jia, X. Tian, X. Gan, and X. Wang, "Location-Aware Crowdsensing: Dynamic Task Assignment and Truth Inference," *IEEE Transactions on Mobile Computing*, vol. 12, no. 9, pp. 362–375, 2018.
- **Xiong Wang**, J. Zhang, X. Tian, X. Gan, Y. Guan, and X. Wang, "Crowdsensing Based Consensus Incident Report for Road Traffic Acquisition," *IEEE Transactions on Intelligent Transportation Systems*, vol. 19, no. 8, pp. 2536–2547, 2017.
- **Xiong Wang**, Z. Liu, X. Tian, X. Gan, Y. Guan, and X. Wang, "Incentivizing Crowdsensing with Location-Privacy Preserving," *IEEE Transactions on Wireless Communications*, vol. 16, no. 10, pp. 6940–6952, 2017.
- **Xiong Wang**, L. Ding, Q. Wang, J. Xie, T. Wang, X. Tian, Y. Guan, and X. Wang, "A Picture is Worth a Thousand Words: Share Your Real-Time View on the Road," *IEEE Transactions on Vehicular Technology*, vol. 66, no. 4, pp. 2902–2914, 2017.
- **Xiong Wang**, L. Fu, Y. Zhang, X. Gan, and X. Wang, "VDNet: an infrastructure-less UAV-assisted sparse VANET system with vehicle location prediction," *Wireless Communications and Mobile Computing*, vol. 16, no. 17, pp. 2991–3003, 2016.
- **Xiong Wang**, J. Ye, and John C. S. Lui, "Mean Field Graph Based D2D Collaboration and Offloading Pricing in Mobile Edge Computing," *IEEE Transactions on Mobile Computing*, 2021. (On submission)

- **Xiong Wang**, J. Ye, and John C. S. Lui, “Decentralized Scheduling and Dynamic Pricing for Edge Computing: A Mean Field Game Approach,” IEEE/ACM Transactions on Networking, 2021. (On submission, second round)
- **Xiong Wang**, Y. Li, and R. Jia, “Mean Field Bandit Game with Continuous Reward: Existence and Uniqueness of Equilibrium,” IEEE/ACM Transactions on Networking, 2021. (On submission, second round)
- **Xiong Wang**, J. Ye, and John C.S. Lui, “An Online Learning Aided Decentralized Task Offloading for MultiUser Mobile Edge Computing,” IEEE Journal on Selected Areas in Communications, 2022. (On submission)
- Xiaoying Gan, **Xiong Wang**, W. Niu, G. Hang, X. Tian, X. Wang, and J. Xu, “Incentivize Multi-Class Crowd Labeling Under Budget Constraint,” IEEE Journal on Selected Areas in Communications, vol. 35, no. 4, pp. 893–905, 2017. (**First author is my co-advisor**)
- Y. Li, **Xiong Wang**, X. Gan, H. Jin, and X. Wang, “Learning-aided Computation Offloading for Trusted Collaborative Mobile Edge Computing,” IEEE Transactions on Mobile Computing, vol. 19, no. 12, pp. 2833–2849, 2020.

Conference

- **Xiong Wang**, J. Ye, and John C. S. Lui, “Decentralized Task Offloading in Edge Computing: A Multi-User Multi-Armed Bandit Approach,” in IEEE INFOCOM, 2022.
- **Xiong Wang**, R. Jia, X. Tian, and X. Gan, “Dynamic Task Assignment in Crowdsensing with Location Awareness and Location Diversity,” in IEEE INFOCOM, 2018.
- **Xiong Wang**, J. Ye, and John C. S. Lui, “Joint D2D Collaboration and Task Offloading for Edge Computing: A Mean Field Graph Approach,” in IEEE/ACM IWQoS, 2021.
- **Xiong Wang**, and R. Jia, “Mean Field Equilibrium in Multi-Armed Bandit Game with Continuous Reward,” in IJCAI, 2021.
- **Xiong Wang**, and Y. Li, “Learning to Elicit Effort in Large-Scale Crowdsourcing: A Mean Field Multi-Armed Bandit Approach,” in IJCAI, 2022. (On submission)
- Y. Wu, **Xiong Wang**, Z. Yang, X. Gan, X. Tian, and X. Wang, “Crowdclustering Items into Overlapping Clusters,” in IEEE ICC, 2016.
- C. Shi, **Xiong Wang**, X. Tian, X. Gan, and X. Wang, “Online Multi-class Learning with “Bandit” Feedback under a Confidence-Weighted Approach,” in IEEE Globecom, 2016.

Patent

- **Xiong Wang**, L. Ding, Q. Wang, J. Xie, X. Tian, X. Gan, Y. Guan, and X. Wang, “车辆轨迹跟踪和车辆行为预测方法,” Authorized.
- **Xiong Wang**, G. Cai, G. Hao, X. Gan, X. Wang, X. Tian, X. Di, and J. Tian. “一种基于缓存编码的视频传输系统,” Authorized.
- S. Zhu, **Xiong Wang**, Z. Zhang, C. Kong, Y. Zhang, X. Tian, X. Gan, and X. Wang, “基于智能手机的车道级别地图生成和定位系统,” Authorized.
- T. Wang, **Xiong Wang**, X. Wang, X. Tian, X. Gan, X. Di, and J. Tian, “基于 TDMA 的弹性长距离无线传输系统的分布式接入方法,” Authorized.
- H. Guo, **Xiong Wang**, G. Cai, X. Gan, X. Wang, and X. Tian, “传输文件的控制管理方法、系统、可读存储介质及设备,” Authorized.

Awards

- 2019 Outstanding Doctoral Thesis Award of Chinese Institute of Electronics (电子学会优秀博士论文-全国 26 篇之一)
- 2019 Outstanding Ph.D. Graduates (上海交通大学优秀博士毕业生)
- 2017, 2018 Post-Graduate National Scholarship, twice (ranking 1st and 3rd, respectively)
- 2014 Honored Graduates of Huazhong University of Science and Technology
- 2013 Interdisciplinary Contest in Modeling Certificate of Achievement: Meritorious Winner
- 2013 Excellent scholarship of Huazhong University of Science and Technology