# Xiangyu Guo
(Xiang-Yu Guo)

Research Scientist
Meta Platform Inc., at Seattle

xyg.misc@gmail.com
xyguo.github.io/

## Experiences

1. Research Scientist, Facebook, 2022 – Now.
2. Machine Learning Engineer Intern, Facebook, Summer 2021.

    ▷ Developed stream processing infra for the Signal Intelligence team under Ads ENG.

## Education

Ph.D. in Computer Science, SUNY Buffalo, U.S., 2017—2022.
Advisor: Shi Li

M.S. in Computer Science, Nanjing University, China, 2017.
Learning And Mining from DatA (LAMDA) Group
Advisor: Wei Wang

B.E. in Electronic Engineering, Xidian University, China, 2014.

## Research Interests

Approximation Algorithms with applications in combinatorial optimization and machine learning, mainly facility location (clustering), scheduling, and vehicle routing problems in the distributed and online setting. Currently I'm interested in learning-augmented algorithms for online combinatorial optimization problems.

## Teaching

Instructor, *CSE 331: Algorithm & Complexity*, SUNY Buffalo, Summer 2020.

Teaching Assistant, *CSE 431/531: Algorithm Design & Analysis*, SUNY Buffalo, Fall 2019.

Teaching Assistant, *CSE 250: Data Structures*, SUNY Buffalo, Fall 2017.

## Awards

Graduate Student 1st Year Achiever Award, 2018, SUNY Buffalo

Student Travel Award: CCC'18, STOC'18, NeurIPS'18, WSDM'22.

## Publications

(* means equal contribution, and ($\alpha$) means authors are listed in alphabetical order)

### *Manuscripts*

($\alpha$) **X. Guo**, Shi Li, Kelin Luo, Yuhao Zhang. Online Food Delivery to Minimize Maximum Flow Time. *In submission*.

Kelin Luo, Alexandre M. Florio, Syamantak Das, **X. Guo**. A Hierarchical Grouping Algorithm for the Multi-vehicle Dial-a-Ride Problem. *In submission*

### *Conferences*

($\alpha$) **X. Guo**, Kelin Luo. The Online Car-sharing Problem. In *The 8th Annual International Conference on Algorithms and Discrete Applied Mathematics*, 2022.

Kelin Luo, Chaitanya Agarwal, Syamantak Das, **X. Guo**. The Multi-vehicle Ride-sharing Problem. In *The 15th International Conference on Web Search and Data Mining* (**WSDM**'22), 2022.

Chen Ma, **X. Guo**, Li Chen, Jun-Hai Yong, Yisen Wang. Finding Optimal Tangent Points for Reducing Distortions of Hard-label Attacks. In *Advances in Neural Information Processing Systems 34* (**NeurIPS**'21), 2021.

($\alpha$) **X. Guo**, Janardhan Kulkarni, Shi Li, Jiayi Xian. Consistent $k$-Median: Simpler, Better, and Robust. In *The 24th International Conference on Artificial Intelligence and Statistics* (**AISTATS**'21), 2021.

($\alpha$) **X. Guo**, Janardhan Kulkarni, Shi Li, Jiayi Xian. On the Facility Location Problem in Online and Dynamic Models. In *International Conference on Approximation Algorithms for Combinatorial Optimization Problems* (**APPROX**'20), 2020.

($\alpha$) **X. Guo**, Bundit Laekhanukit, Guy Kortsarz, Shi Li, Daniel Vaz, Jiayi Xian. On Approximating Degree-Bounded Network Design Problems. In *International Conference on Approximation Algorithms for Combinatorial Optimization Problems* (**APPROX**'20), 2020.

*Di Wang, ***X. Guo**, Shi Li, Jinhui Xu. Scalable Estimating Stochastic Linear Combination of Non-linear Regressions. In *Thirty-Fourth AAAI Conference on Artificial Intelligence* (**AAAI**'20), 2020.

($\alpha$) **X. Guo**, Shi Li. Distributed $k$-Clustering for Data with Heavy Noise. In *Advances in Neural Information Processing Systems 31* (**NeurIPS**'18, spotlight paper), 2018.

Yang Yang, De-Chuan Zhan, **X.-Y. Guo**, Yuan Jiang. Modal Consistency based Pre-trained Multi-Model Reuse. In *Proceedings of the 26th International Joint Conference on Artificial Intelligence* (**IJCAI**'17), 2017.

Wei Wang, **X.-Y. Guo**, Shao-Yuan Li, Yuan Jiang, Zhi-Hua Zhou. Obtaining High-quality Label by Distinguishing between Easy and Hard Items in Crowdsourcing. In *Proceedings of the 26th International Joint Conference on Artificial Intelligence* (**IJCAI**'17), 2017

## *Journals*

($\alpha$) **X. Guo**, Kelin Luo, Zhihao Gavin Tang, Yuhao Zhang. Online Food Delivery on Stars. **Theoretical Computer Science**, 2022

*Di Wang, ***X. Guo**, Shi Li, Jinhui Xu. Robust High Dimensional Expectation Maximization Algorithm via Trimmed Hard Thresholding. **Machine Learning**, 2020

*Di Wang, ***X. Guo**, Chaowen Guan, Shi Li, Jinhui Xu. Estimating stochastic linear combination of non-linear regressions efficiently and scalably. **Neurocomputing**, 2020.