Aug 2025

XIANGYU GUO

Assistant Professor of Teaching
Department of Computer Science and Engineering

WORK ADDRESS
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EDUCATION

Ph.D., Computer Science, University at Buffalo — Jun 2022
Thesis Title: New Algorithmic Solutions for Some Clustering and Network Design Problems
Advisor: Prof. Shi Li

M.S., Computer Science, Nanjing University, China — Sep 2014 – Jun 2017
Thesis Title: Research on Machine Learning Methods that Exploit Unlabeled Data
Advisor: Prof. Wei Wang

B.S., Electronic Engineering, Xidian University, China — Jun 2014

PROFESSIONAL EXPERIENCE

Assistant Professor of Teaching, Dept. of CSE — Sep 2024 – Present
University at Buffalo, Buffalo, NY

Research Scientist — Jun 2022 – Aug 2024
Meta Platforms Inc., Seattle, WA

TEACHING AND COURSES TAUGHT

University at Buffalo, Buffalo, NY

- (Graduate) CSE565: Computer Security (Fall24, Spring25, Fall25, Spring26)
  This course aims to build a strong foundation in cybersecurity principles and practical skills, covering cryptography, software, system, network, and web security topics to protect various computing systems from vulnerabilities and attacks.
    - Spring25: Course rating 4, Instructor rating 4.4
    - Fall24: (385 enrolled)
        - Section B: Course rating 3.8, Instructor rating 3.9
        - Section C: Course rating 3.9, Instructor rating 4.1

- (Undergraduate) CSE396: Introduction to the Theory of Computation (Spring25)
  This course provides a mathematically rigorous exploration of the theory of computation, focusing on the fundamental limits and capabilities of computers, models of computation, and computational complexity (including P vs NP).
    - Spring25: (88 enrolled), Course rating 3.2, Instructor rating 3.7

- (Graduate) CSE596: Theory of Computation (Spring26)
- (Graduate) CSE632: Advanced Algorithm (Spring26)

GRANTS AND CONTRACTS

Summary of Research Funding

Funding category	Total	Candidate's share
External sources (do not include startup)	$40,300	$13,299

Current Funding

1. Teaching Computer Science Theory Courses with LLM-enhanced Automatic Proof Assistant, PI: Kelin Luo, Co-PI: Xiangyu Guo, Chong Liu (SUNY Albany), 05/30/2025-05/30/2026, SUNY IITG/OER Impact Grant, $40,300 (33% share).

UNIVERSITY SERVICE

Department Committees

Member, Committee BESSF — Sep 2024 – Present
(BESSF: Broadening Engagement for Students Staff and Faculty)
Member, Committee Student Grievance — Sep 2024 – Present

OTHER UNIVERSITY SERVICE

Judge for CSTEP Summer Research Poster Symposium — Jul 31, 2025

MENTORING ACTIVITIES

Undergraduate Faculty Advisor, SEAS — Oct 2024 – Present

PROFESSIONAL ACTIVITIES

Reviewer Journal

Discrete Applied Mathematics
Journal of Combinatorial Optimization
Algorithmica
Journal of Computer System and Science
Theoretical Computer Science

Reviewer Conference

NeurIPS	2019, 2020, 2021, 2023, 2025
ICML	2019, 2021
AAAI	2021
AISTATS	2021
ICLR	2023
ESA	2022
ISAAC	2019
ICALP	2021, 2022
SPAA	2020
SoCG	2020, 2025

PUBLICATIONS AND TECHNICAL PRESENTATIONS

Google Scholar: https://scholar.google.com/citations?user=BMIYUw8AAAAJ
citations: 156
h-index: 7
i-index: 6
ORCID: https://orcid.org/0000-0003-0727-5245

Refereed Journal Articles (* denotes graduate students, $^{+}$ denotes undergraduate student, (α) means authors are listed in alphabetical order)

1. (α) **Xiangyu Guo**, Shi Li, Kelin Luo, Yuhao Zhang. Minimizing the Maximum Flow Time in the Online Food Delivery Problem. *Algorithmica*, 86(4), 907-943, 2024

2. Kelin Luo, Alexandre M. Florio, Syamantak Das, **Xiangyu Guo**, A hierarchical grouping algorithm for the multi-vehicle dial-a-ride problem, Proc. VLDB Endow. 16(5): 1195-1207, 2023

3. (α) **Xiangyu Guo***, Kelin Luo, Zhihao Gavin Tang, Yuhao Zhang. The Online Food Delivery Problem on Stars. *Theoretical Computer Science*, 2022

4. (α) **Xiangyu Guo***, Bundit Laekhanukit, Guy Kortsarz, Shi Li, Daniel Vaz, Jiayi Xian. On Approximating Degree-Bounded Network Design Problems. *Algorithmica*, 2022.

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

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

Refereed Conference Articles (presenter name underlined, *graduate student, +undergraduate student (α) means authors are listed in alphabetical order)

1. (α) **Xiangyu Guo***, Shi Li, Kelin Luo, Yuhao Zhang, Minimizing the maximum flow time in the online food delivery problem, ISAAC 2022, Seoul, Korea, December 2022

2. Kelin Luo, Chaitanya Agrawal+, Syamantak Das, **Xiangyu Guo***, The multi-vehicle ride-sharing problem, *WSDM 2022*, Phoenix, Arizona, USA, February 2022

3. **Xiangyu Guo***, Kelin Luo, Algorithms for online car-sharing problem, *CALDAM 2022*, Guwahati, India, February 2022

4. Chen Ma, **Xiangyu Guo***, Li Chen, Jun-Hai Yong, Yisen Wang. Finding Optimal Tangent Points for Reducing Distortions of Hard-label Attacks. *NeurIPS 2021*.

5. (α) **Xiangyu Guo***, Janardhan Kulkarni, Shi Li, Jiayi Xian*. Consistent *k*-Median: Simpler, Better, and Robust. *AISTATS 2021*.

6. (α) **Xiangyu Guo***, Janardhan Kulkarni, Shi Li, Jiayi Xian*. On the Facility Location Problem in Online and Dynamic Models. *APPROX 2020*.

7. (α) **Xiangyu Guo***, Bundit Laekhanukit, Guy Kortsarz, Shi Li, Daniel Vaz, Jiayi Xian*. On Approximating Degree-Bounded Network Design Problems. *APPROX 2020*.

8. Di Wang*, **Xiangyu Guo***, Shi Li, Jinhui Xu. Scalable Estimating Stochastic Linear Combination of Non-linear Regressions. *AAAI 2020*.

9. (α) **Xiangyu Guo***, Shi Li. Distributed *k*-Clustering for Data with Heavy Noise. *NeurIPS 2018*.

10. Yang Yang, De-Chuan Zhan, **Xiangyu Guo***, Yuan Jiang. Modal Consistency based Pre-trained Multi-Model Reuse. *IJCAI 2017*.

11. Wei Wang, **Xiangyu Guo***, Shao-Yuan Li, Yuan Jiang, Zhi-Hua Zhou. Obtaining High-quality Label by Distinguishing between Easy and Hard Items in Crowdsourcing. *IJCAI 2017*