KAIXIANG LIN

Github & Google Scholar & Homepage
Email: linkaixi@msu.edu

EDUCATION

Michigan State University *Aug. 2015 - present*
Ph.D. student in Computer Science & Engineering
Advisor: Dr. Jiayu Zhou

University of Science and Technology of China *Sept. 2010 - July 2014*
B.E. in Electronic Information Engineering

RESEARCH INTERESTS

Reinforcement Learning, Data Mining, Machine Learning
My research focuses on developing sample-efficient reinforcement learning algorithms for large-scale real-world applications, including transportation, multi-channel marketing, and healthcare.

PROFESSIONAL EXPERIENCE

Research Intern at **Google, Mountain View, CA** *May. - Aug. 2019*

Research Intern at **Didi AI Labs, Beijing** *May. - Aug. 2017, 2018*

- Designed and implemented constrained multi-armed bandit algorithm for a multi-channel marketing project. Return on Investment (ROI) increased over 23% with the same scale of investment. This algorithm is currently running online.
- Proposed and implemented a novel multi-agent deep reinforcement learning algorithm for large scale fleet management that is able to coordinate large number of agents and increase the GMV over 15% based on a simulator that is calibrated with real data.

SELECTED PUBLICATIONS

Kaixiang Lin and Jiayu Zhou. "Ranking Policy Gradient", Preprint, 2019.

Kaixiang Lin, Renyu Zhao, Zhe Xu, Jiayu Zhou. "Efficient Large-Scale Fleet Management via Multi-Agent Deep Reinforcement Learning", the 24th ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2018. [**Research track Oral**][**Acceptance rate: 10.9%**]

Kaixiang Lin, Shu Wang, Jiayu Zhou. "Collaborative Deep Reinforcement Learning", Preprint, 2017.

Kaixiang Lin and Jiayu Zhou. "Interactive Multi-Task Relationship Learning", IEEE International Conference on Data Mining (ICDM), 2016.[**Oral**][**Acceptance rate: 8.5%**]

Kaixiang Lin, Jianpeng Xu, Inci M. Baytas, Shuiwang Ji and Jiayu Zhou. "Multi-Task Feature Interaction Learning", the 22nd ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD), 2016. [**Research track**][**Acceptance rate: 18.1%**]

HONORS AND AWARDS

Conference Travel Grant: SDM2016, KDD2016, SDM2017, SDM2018, KDD2018
Best Poster Award, Doctoral Forum, SDM2017

SERVICES

Program Committee (PC) member:

- IEEE International Conference on Big Data (IEEE BigData 2018, 2019)

Journal Reviewer:

- The Transportation Research Board (TRB) 98th Annual Meeting
- International Journal of Machine Learning and Cybernetics (JMLC)
- Neurocomputing
- Pattern Recognition
- Data Mining and Knowledge Discovery
- Transactions on Knowledge Discovery from Data (TKDD)

Conference external reviewer:

- The IEEE International Conference on Data Mining (ICDM), 2017, 2018.
- The International Joint Conference on Artificial Intelligence (IJCAI, 2019).