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, transfer learning, and data mining.
My research focuses on developing efficient reinforcement learning algorithms for large-scale real-world
applications, including transportation, multi-channel marketing, and healthcare.

PROFESSIONAL EXPERIENCE

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

- Designed and implemented constrained multi-armed bandit algorithm for a multi-channel market-
  ing project. Return on Investment (ROI) increased over 23% with the same scale of investment.
  This algorithm is currently running online. [**Press Coverage by Didi Chuxing**]

- 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, 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%**]

Fengyi Tang, **Kaixiang Lin**, Ikechukwu Uchendu, Hiroko H Dodge, Jiayu Zhou "Improving Mild
Cognitive Impairment Prediction via Reinforcement Learning and Dialogue Simulation", Preprint, 2018.

Liyang Xie, **Kaixiang Lin**, Shu Wang, Fei Wang, Jiayu Zhou "Differentially Private Generative Ad-
versarial Network", Preprint, 2018.

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

Inci M. Baytas, **Kaixiang Lin**, Fei Wang, Anil K. Jain and Jiayu Zhou. "PhenoTree: Interactive Visual
Analytics for Hierarchical Phenotyping from Large-Scale Electronic Health Records", IEEE Transaction
on Multimedia, 2016.

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

Inci M. Baytas, **Kaixiang Lin**, Fei Wang, Anil K. Jain and Jiayu Zhou. "Stochastic Convex Sparse
Principal Component Analysis" EURASIP Journal on Bioinformatics and Systems Biology, 2016.

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%**]

Jianpeng Xu, **Kaixiang Lin**, Pang-Ning Tan and Jiayu Zhou. "Synergies that Matter: Efficient Interaction Selection via Sparse Factorization Machine", SIAM International Conference on Data Mining (SDM) 2016.

HONORS AND AWARDS

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

SERVICES

Program Committee (PC) member:

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

Journal Reviewer:

- 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.