Canzhe Zhao

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EDUCATION

Shanghai Jiao Tong University　　　　　　　　　　　　　　　　Shanghai, China
Ph.D. Student in Computer Science and Engineering　　　　　　　Sept. 2021 - present

- − Advisor: Prof. Shuai Li
- − GPA: 3.13/4.0

Shandong University　　　　　　　　　　　Jinan, Shandong Province, China
B.Eng. in Software Engineering　　　　　　　　　　　　　　　Sept. 2017 - Jun. 2021

- − GPA: 4.73/5.0, ranking: 2/342 (until 2020/06/15)

Henan Experimental High School　　　　Zhengzhou, Henan Province, China
High School Student　　　　　　　　　　　　　　　　　　　　Sept. 2014 - Jun. 2017

RESEARCH INTERESTS

Learning Theory
I am broadly interested in learning theory, with a particular focus on sequential-decision making problems, including

- − Online Learning
- − Reinforcement Learning

Applications
I am also interested in some applications of reinforcement learning such as data mining and recommender systems.

PUBLICATIONS AND PREPRINTS

[1] F. Kong, **C. Zhao**, and S. Li, "Best-of-three-worlds analysis for linear bandits with follow-the-regularized-leader algorithm", in *The Thirty Sixth Annual Conference on Learning Theory, COLT 2023, 12-15 July 2023, Bangalore, India*, ser. Proceedings of Machine Learning Research, vol. 195, PMLR, 2023, pp. 657–673.

[2] Q. Li*, C. Zhao*, T. Yu, J. Wu, and S. Li, "Clustering of conversational bandits with posterior sampling for user preference learning and elicitation", *User Modeling and User-Adapted Interaction*, pp. 1–48, 2023.

[3] **C. Zhao**, R. Yang, B. Wang, and S. Li, "Learning adversarial linear mixture markov decision processes with bandit feedback and unknown transition", in *The Eleventh International Conference on Learning Representations, ICLR 2023, Kigali Rwanda, May 1-5, 2023*, 2023.

[4] **C. Zhao**, R. Yang, B. Wang, X. Zhang, and S. Li, "Learning adversarial low-rank markov decision processes with unknown transition and full-information feedback", in *NeurIPS*, 2023.

[5] **C. Zhao**, Y. Ze, J. Dong, B. Wang, and S. Li, "Differentially private temporal difference learning with stochastic nonconvex-strongly-concave optimization", in *Proceedings of the Sixteenth ACM International Conference on Web Search and Data Mining, WSDM 2023, Singapore, 27 February 2023 - 3 March 2023*, ACM, 2023, pp. 985–993.

[6] C. Zhao*, Y. Ze*, J. Dong, B. Wang, and S. Li, "DPMAC: differentially private communication for cooperative multi-agent reinforcement learning", in *Proceedings of the Thirty-Second International Joint Conference on Artificial Intelligence, IJCAI 2023, 19th-25th August 2023, Macao, SAR, China*, ijcai.org, 2023, pp. 4638–4646.

[7] C. Chen, **C. Zhao**, and S. Li, "Simultaneously learning stochastic and adversarial bandits under the position-based model", in *Thirty-Sixth AAAI Conference on Artificial Intelligence, AAAI 2022*, AAAI Press, 2022, pp. 6202–6210.

[8] **C. Zhao**, T. Yu, Z. Xie, and S. Li, "Knowledge-aware conversational preference elicitation with bandit feedback", in *WWW '22: The ACM Web Conference 2022, Virtual Event, Lyon, France, April 25 - 29, 2022*, ACM, 2022, pp. 483–492.

[9] J. Wu*, C. Zhao*, T. Yu, J. Li, and S. Li, "Clustering of conversational bandits for user preference learning and elicitation", in *CIKM '21: The 30th ACM International Conference on Information and Knowledge Management, Virtual Event, Queensland, Australia, November 1 - 5, 2021*, ACM, 2021, pp. 2129–2139.

[10] Z. Xie, T. Yu, **C. Zhao**, and S. Li, "Comparison-based conversational recommender system with relative bandit feedback", in *SIGIR '21: The 44th International ACM SIGIR Conference on Research and Development in Information Retrieval, Virtual Event, Canada, July 11-15, 2021*, ACM, 2021, pp. 1400–1409.

(* indicates equal contribution.)

EXPERIENCE

Academic Services

Reviewer/sub-reviewer

- ICLR 2023, 2024
- NeurIPS 2021, 2022, 2023
- ICML 2021, 2022, 2023
- UAI 2021, 2022, 2023
- AAMAS 2021, 2022
- ALT 2024
- AISTATS 2023
- JSAIT 2021
- TNNLS 2023

Reading Groups

The reading groups I attended mainly focus on reinforcement learning, online learning and optimization.

- *Algorithmic Game Theory*, 2023
- *A Modern Introduction to Online Learning*, 2022
- *Reinforcement Learning: Theory and Algorithms*, 2022
- *Large-Scale Optimization for Data Science*, 2021
- *Bandit Algorithms*, 2020

CONTESTS

- Kaggle Santa 2020 - The Candy Cane Contest - Silver Medal (Top 6%)   Jan. 2021
- The 2019 ACM-ICPC Asia Regional Contest - Bronze Medal   Oct. 2019
- The 2019 ACM-ICPC China Shandong Provincial Programming Contest - Silver Medal   May. 2019
- China Undergraduate Mathematical Contest in Modeling - The Second Prize in Shandong Province   Sept. 2018

Honors

- The Third Excellent Doctoral Academic Forum of John Hopcroft Center - The First Prize   Dec. 2022
- Huatai Securities Scholarship of Shanghai Jiao Tong University   Dec. 2022
- Weichai Power Scholarship of Shandong University   Oct. 2019
- Shandong University Academic Scholarship - The Second Prize   Sept. 2019
- Shandong University Research and Innovation Scholarship - The Second Prize   Sept. 2019
- Shandong University Academic Scholarship - The First Prize   Sept. 2018
- Shandong University Research and Innovation Scholarship - The Second Prize   Sept. 2018
- Shandong University Triple-A Student   Sept. 2018
- Huawei Scholarship of Shandong University   Oct. 2018