Yu-Jie Zhang

The University of Tokyo

EDUCATION

The University of Tokyo, Japan

Ph.D. candidate, Complexity Science and Engineering

Nanjing University, China

M.Sc., Computer Science and Technology

Tongji University, China

B.Sc., Electronic Science and Technology

October 2021 - Present Supervisor: Prof. Masashi Sugiyama

June 16, 2021

Supervisor: Prof. Zhi-Hua Zhou

July 01, 2018

GPA: 4.91/5.00, ranking 1/32

RESEARCH INTEREST

My research focuses on developing machine learning techniques to learn with non-stationary and imperfect data, particularly from the following perspectives:

- Online learning in non-stationary environments [2,4,5,9,10]
- Classification with imperfect data [3,6,7,8]
- Contextual bandit with nonlinear reward [1]

PUBLICATIONS

Preprints

- 1. S. Chen, Y.-J. Zhang, W.-W. Tu, P. Zhao, and L. Zhang. Optimistic Online Mirror Descent for Bridging Stochastic and Adversarial Online Convex Optimization. In submission to JMLR, minor revision.
- 2. P. Zhao, Y.-J. Zhang, L. Zhang, and Z.-H. Zhou. Adaptivity and Non-stationarity: Problem-dependent Dynamic Regret for Online Convex Optimization. In submission to JMLR, minor revision.

Conference Publications

- 1. Y.-J. Zhang and M. Sugiyama. Online (Multinomial) Logistic Bandit: Improved Regret and Constant Computation Cost. In Advances in Neural Information Processing Systems 36 (NeurIPS), 2023. [Spotlight]
- 2. Y.-J. Zhang, Z.-Y. Zhang, P. Zhao, and M. Sugiyama. Adapting to Continuous Covariate Shift via Online Density Ratio Estimation. In *Advances in Neural Information Processing Systems 36* (NeurIPS), 2023.
- 3. X.-Q. Cai, Y.-J. Zhang, C.-K. Chiang and M. Sugiyama. Imitation Learning from Vague Feedback. In *Advances in Neural Information Processing Systems 36* (NeurIPS), 2023.
- 4. Y. Bai*, Y.-J. Zhang*, P. Zhao, M. Sugiyama, and Z.-H. Zhou. Adapting to Online Label Shift with Provable Guarantees. In *Advances in Neural Information Processing Systems 35* (NeurIPS), 2022. (* indicates equal contribution)
- Z.-Y. Zhang, Y.-Y. Qian, Y.-J. Zhang, Y. Jiang, Z.-H. Zhou. Adaptive Learning for Weakly Labeled Streams. In Proceedings of the 28th ACM SIGKDD Conference on Knowledge Discovery and Data Mining (KDD), 2022.
- 6. **Y.-J. Zhang**, Y.-H. Yan, P. Zhao and Z.-H. Zhou. Towards Enabling Learnware to Handle Unseen Jobs. In *Proceedings of the 35th AAAI Conference on Artificial Intelligence* (**AAAI**), 2021.
- 7. P. Zhao, Y.-J. Zhang and Z.-H. Zhou. Exploratory Machine Learning with Unknown Unknowns. In *Proceedings* of the 35th AAAI Conference on Artificial Intelligence (AAAI), 2021.
- 8. Y.-J. Zhang, P. Zhao, L. Ma and Z.-H. Zhou. An Unbiased Risk Estimator for Learning with Augmented Classes. In Advances in Neural Information Processing Systems 33 (NeurIPS), 2020.
- 9. P. Zhao, Y.-J. Zhang, L. Zhang and Z.-H. Zhou. Dynamic Regret of Convex and Smooth Functions. In Advances in Neural Information Processing Systems 33 (NeurIPS), 2020.
- 10. Y.-J. Zhang, P. Zhao, and Z.-H. Zhou. A Simple Online Algorithm for Competing with Dynamic Comparators. In *Proceedings of the 36th Conference on Uncertainty in Artificial Intelligence* (UAI), 2020.

AWARDS & HONORS

- Top Reviewer for NeurIPS 2023, 2023
- Top Reviewer for UAI 2023, 2023
- Top Reviewer for NeurIPS 2022, 2022
- The University of Tokyo Fellowship, Tokyo, 2021
- Outstanding Master Dissertation Award by Jiangsu Computer Society, Nanjing, 2021
- Excellent Graduate of Nanjing University, Nanjing, 2021
- National Graduate Scholarship for Master Student, MOE of PRC, 2020

ACADEMIC SERVICE

- Reviewer for Conference: NeurIPS (2021-2023), ICML (2022-2023), ICLR (2022-2024), AISTATS (2021-2024), UAI (2022-2023), AAAI (2021, 2024), IJCAI (2020-2023), ECAI (2020).
- Reviewer for Journal: Journal of Machine Learning Research (JMLR), IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), Frontiers of Computer Science.