Yu-Jie Zhang

The University of Tokyo

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EDUCATION

The University of Tokyo, Japan — October 2021 - Present
Ph.D. candidate, Complexity Science and Engineering — Supervisor: Prof. Masashi Sugiyama

Nanjing University, China — June 16, 2021
M.Sc., Computer Science and Technology — Supervisor: Prof. Zhi-Hua Zhou

Tongji University, China — July 01, 2018
B.Sc., Electronic Science and Technology — 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
- Classification with imperfect data
- Contextual bandit with nonlinear reward

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.
3. W. Wang, T. Ishida, **Y.-J. Zhang**, G. Niu, and M. Sugiyama. Learning with Complementary Labels Revisited: A Consistent Approach via Negative-Unlabeled Learning.

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. (* equal contribution)
5. 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.

Journal Publications

1. P. Zhao, J.-W. Shan, **Y.-J. Zhang** and Z.-H. Zhou. Exploratory Machine Learning with Unknown Unknowns. Artificial Intelligence (**AIJ**), to appear, 2024.

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.