Mingyuan Zhang

Ph.D candidate in Computer and Information Science
University of Pennsylvania

Email: myz@seas.upenn.edu
Website: myzhang.me
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RESEARCH INTEREST

Machine learning and statistical learning theory, multiclass and multi-label classification, learning with noisy labels, non-decomposable performance measures. I enjoy developing both theory and algorithms to solve problems of practical import.

EDUCATION

University of Pennsylvania   Philadelphia, Pennsylvania, USA
Ph.D. in Computer and Information Science, Advisor: Prof. Shivani Agarwal.   2018 - 2024 (expected)

University of Michigan   Ann Arbor, Michigan, USA
B.S. in Honors Mathematics, Honors Statistics, Computer Science and Data Science.   2013 - 2018

PUBLICATIONS

1. Hangfeng He, **Mingyuan Zhang**, Qiang Ning, Dan Roth. Foreseeing the Benefits of Incidental Supervision. In *Proceedings of the 2021 Conference on Empirical Methods in Natural Language Processing* (EMNLP), 2021. **Oral paper**.

2. **Mingyuan Zhang**, Jane Lee, Shivani Agarwal. Learning from Noisy Labels with No Change to the Training Process. In *Proceedings of the 38th International Conference on Machine Learning* (ICML), 2021.

3. **Mingyuan Zhang**, Shivani Agarwal. Bayes Consistency vs. H-Consistency: The Interplay between Surrogate Loss Functions and the Scoring Function Class. In *Advances in Neural Information Processing Systems* (NeurIPS), 2020. **Spotlight paper**.

4. **Mingyuan Zhang**, Harish Guruprasad Ramaswamy, Shivani Agarwal. Convex Calibrated Surrogates for the Multi-Label F-Measure. In *Proceedings of the 37th International Conference on Machine Learning* (ICML), 2020.

OTHER MANUSCRIPTS.

1. **Mingyuan Zhang**, Ambuj Tewari. On the Minimax Regret in Online Ranking with Top-k Feedback. Under review in *Machine Learning* journal.

SKILLS

- **Programming Languages:** Python (proficient), C/C++ (proficient), Matlab (proficient).
- **Machine Learning:** scikit-learn (proficient), PyTorch (proficient), TensorFlow (proficient).

WORK EXPERIENCES AND ACTIVITIES

- **University of Pennsylvania (Philadelphia, PA, USA)**   Sep. 2018 - Current
  Graduate research assistant (Supervisor: Prof. Shivani Agarwal).

- **University of Pennsylvania (Philadelphia, PA, USA)**   Spring 2020, Spring 2021, Spring 2022
  Head teaching assistant for CIS 520 Machine Learning.

- **University of Michigan (Ann Arbor, MI, USA)**   Sep. 2017 - Aug. 2018
  Research assistant working on learning to rank with top-k feedback (Supervisor: Prof. Ambuj Tewari).

Professional Activities

- **Journal Reviewer:** Journal of Machine Learning Research, Transactions on Pattern Analysis and Machine Intelligence.
- **Conference Reviewer:** NeurIPS (2021-2022), ICLR (2022-2023).