Mufang Ying

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Education

Rutgers University - New Brunswick **Sep. 2020 – Current**
Doctor of Philosophy in Statistics; GPA: 3.97/4.0 *Piscataway, NJ*

University of Wisconsin - Madison **Sep. 2018 – May 2020**
Master of Science in Data Science; GPA: 4.0/4.0 *Madison, WI*

Zhejiang University **Sep. 2015 – May 2019**
Bachelor of Science in Statistics; GPA: 3.82/4.0 *Hangzhou, China*

Skills Summary

- **Languages:** Python [numpy, pandas, scikit-learn, pytorch, transformers], R, Matlab, C, SQL
- **Expertise:** Machine Learning, Natural Language Processing, Deep Learning, Statistical Inference, Experimental Design, Uncertainty Quantification, Non-convex Optimization, Reinforcement Learning

Experience

Walmart Global Tech **Jun. 2024 – Aug. 2024**
Senior Data Scientist Intern at Cortex AI team (shopping assistant) *Sunnyvale, CA*
- Conducted research on the use of LLM in information retrieval.
- Designed LLM-powered relevance metrics between user search query and retrieved product and compared the developed metric with similarity measure based on sentence transformers and rule-based methods.

Waisman Center **Sep. 2019 – Jun. 2020**
Research Assistant *Madison, WI*
- Developed a computational pipeline in R utilizing Elastic Net to integrate single-cell multi-omics data, predicting disease-associated genes and regulatory networks across specific cell types, with applications to schizophrenia and Alzheimer's disease.

Publications

Adaptive Linear Estimating Equations | ***NeurIPS 2023***
- sequential data, time series, multi-armed bandit algorithm, statistical inference

Statistical Limits of Adaptive Linear Models | ***NeurIPS 2023***
- linear model, high-dimensional statistics, statistical inference

Two-stage Conformal Risk Control with Application to Ranked Retrieval | ***Submitted***
- ranked retrieval problem, uncertainty quantification, risk control

Informativeness of Weighted Conformal Prediction | ***Submitted***
- meta-learning, prediction interval

Surrogate Model for Dynamical Systems | ***In Preparation***
- Gaussian process modeling, bayesian optimization, manifold learning

Awards and Services

- Zhejiang University: Academic Excellence Award 2015-2016, 2016-2017, 2017-2018
- UW-Madison: Exchange & Visiting International Student Academic Excellence Award
- NeurIPS 2023 Scholar Award
- Second Place in 2024 Cohen Student Research Poster Competition Award
- DataCamp at Rutgers: Lecturer on tutorials for Latin Hypercube Design and Bayesian Optimization