Bolian Li
PhD Student

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Education

PhD, Computer Science　　　　　　　　　　　　　　　　　*2022 – Present*
Purdue University　　　　　　　　　　　　　　　　*West Lafayette, IN, USA*
Advisor: Ruqi Zhang

BE, Computer Science and Technology　　　　　　　　　　　*2018 – 2022*
Tianjin University　　　　　　　　　　　　　　　　　　*Tianjin, China*
Advisor: Changqing Zhang
GPA: 3.8/4.0

Experiences

Research Assistant　　　　　　　　　　　　　　　*Sept. 2022 – Present*
Purdue University
LLM alignment, Bayesian deep learning

Research Assistant　　　　　　　　　　　　　*Sept. 2020 – Dec. 2021*
Tianjin University
Trustworthy machine learning

Research Intern　　　　　　　　　　　　　　　*May 2021 – Nov. 2021*
University of Illinois Urbana-Champaign
Graph representation learning

Research Intern　　　　　　　　　　　　　　　*Jan. 2021 – Feb. 2021*
Institute of Computing Technology, Chinese Academy of Sciences
Video object detection

Research Interests

I am interested in the robustness and interpretability of machine-learning models/algorithms in the real world. I focus on the alignment of large language models, the generalization of sampling algorithms, and the learning frameworks for biased data distributions.

Publications

Making Reliable and Flexible Decisions in Long-tailed Classification
Transactions on Machine Learning Research (TMLR)
Bolian Li, Ruqi Zhang

Stochastic Steepest Descent with Acceleration for ℓ_p-Smooth Non-Convex Optimization
Preprint, under review
Xinyu Luo*, Site Bai*, *Bolian Li*, Petros Drineas, Ruqi Zhang, Brian Bullins

ETA: Evaluating Then Aligning Safety of Vision Language Models at Inference Time
International Conference on Learning Representations (ICLR 2025)
Yi Ding, *Bolian Li*, Ruqi Zhang

Cascade Reward Sampling for Efficient Decoding-Time Alignment
Preprint, under review
*Bolian Li**, Yifan Wang*, Ananth Grama, Ruqi Zhang

Entropy-MCMC: Sampling from Flat Basins with Ease

International Conference on Learning Representations (ICLR 2024)
Bolian Li, Ruqi Zhang

Long-tailed Classification from a Bayesian-decision-theory Perspective
Symposium on Advances in Approximate Bayesian Inference (AABI 2023)
Bolian Li, Ruqi Zhang

Trustworthy Long-tailed Classifications
The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)
Bolian Li, Zongbo Han, Haining Li, Huazhu Fu, Changqing Zhang

Graph Communal Contrastive Learning
The Web Conference (WWW 2022), Oral Presentation
Bolian Li, Baoyu Jing, Hanghang Tong

Services

Reviewer	ICML 2025, NeurIPS 2024; ICLR 2025; AISTATS 2024, 2025; UAI 2024, 2025; SPIGM 2023, 2024; NextGenAISafety 2024
Teaching Assistant	CS 57800; CS 38003; CS 17600

Awards

Tan Xuguang Alumni Scholarship, *Tianjin University*	*2020*
Tianjin University Vision Education Fund, *Tianjin University*	*2019*