Bolian Li
PhD Student

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 lblaoke
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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

Purdue University — *Jan. 2023 – Present*
Research Assistant

University of Illinois Urbana-Champaign — *May 2021 – Nov. 2021*
Research Intern

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

Tianjin University — *Sept. 2020 – Dec. 2021*
Research Assistant

Research Interests

I am interested in the generalization and robustness of inference algorithms. I focus on efficient language model alignment, generalizable MCMC sampling, and imbalanced learning.

Publications

More is Less: The Pitfalls of Multi-Model Synthetic Preference Data in DPO Safety Alignment
Preprint, under review
Yifan Wang, Runjin Chen, *Bolian Li*, David Cho, Yihe Deng, Ruqi Zhang, Tianlong Chen, Zhangyang Wang, Ananth Grama, Junyuan Hong

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

Bayesian Computation in Deep Learning
MCMC Handbook
Wenlong Chen*, *Bolian Li**, Ruqi Zhang, Yingzhen Li

Stacey: Promoting Stochastic Steepest Descent via Accelerated ℓ_p-Smooth Nonconvex Optimization
Preprint, under review
Xinyu Luo*, Site Bai*, *Bolian Li**, Petros Drineas, Ruqi Zhang, Brian Bullins

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

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

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*