# Bolian Li

## Education

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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	
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

#### **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 $\ell_p$ -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;
Teaching Assistant	SPIGM 2023, 2024; NextGenAISafety 2024 CS 57800; CS 38003; CS 17600
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#### **Awards**

Tan Xuguang Alumni Scholarship, <i>Tianjin University</i>	2020
Tianjin University Vision Education Fund, Tianjin University	2019