Jianing Zhu

University of Texas at Austin, Austin, Texas

RESEARCH INTERESTS

My research interests lie in trustworthy machine learning for building human-aligned machine intelligence, particularly in developing methodologies that improve its robustness (e.g., for adversarial examples), reliability (e.g., for out-of-distribution data), and transparency (e.g., for functionality and traceability), as well as its applications to construct powerful & responsible AI for benefiting social goods.

PROFESSIONAL EXPERIENCES

Postdoctoral Fellow, UT Austin ECE

Sept. 2025 – Present

VITA Group, Advisor: Prof. Zhangyang "Atlas" Wang

Visiting PhD Student, CMU MLD

Jan. 2025 – June. 2025

Neuro-Symbolic AI Group, Advisor: Prof. Pradeep Ravikumar

Research Intern, RIKEN AIP

Dec. 2023 - May. 2024

Sept. 2021 - Jun. 2025

Advisor: Prof. Bo Han

Imperfect Info rmation Learning Team, Advisor: Prof. Masashi Sugiyama

EDUCATION

Hong Kong Baptist University (HKBU)

Ph.D. of TMLR Group, Department of Computer Science

Sept. 2017 - Jun. 2021

Sichuan University (SCU)

B.Eng. in CS, College of Computer Science

National Top-Notch UG Program

SELECTED PUBLICATIONS

The full list can refer to [Google Scholar]. As of 09/2025, his works have been cited over 904 times, with h-index = 11, below are his selected publications (* indicates the equal contribution):

ICLR 2025 [link]: Qizhou Wang, Bo Han, Puning Yang, Jianing Zhu, Tongliang Liu, Masashi Sugiyama, "Unlearning with Control: Assessing Real-world Utility for Large Language Model Unlearning".

NeurIPS 2024 [link]: Boxuan Zhang*, Jianing Zhu*, Tongliang Liu, Masashi Sugiyama, "What If the Input is Expanded in OOD Detection?".

NeurIPS 2024 [link]: Zhanke Zhou, Rong Tao, Jianing Zhu, Yiwen Luo, Zengmao Wang, Bo Han, "Can Large Language Models Reason Robustly with Noisy Rationales?".

NeurIPS 2024 [link]: Geng Yu, Jianing Zhu, Jiangchao Yao, Bo Han, "Self-Calibrated Tuning of Vision-Language Models for Out-of-Distribution Detection".

NeurIPS 2023 [link]: Jianing Zhu, Geng Yu, Jiangchao Yao, Tongliang Liu, Gang Niu, Masashi Sugiyama, Bo Han, "Diversified Outlier Exposure for Out-of-Distribution Detection via Informative Extrapolation".

ICML 2023 [link]: Jianing Zhu, Hengzhuang Li, Jiangchao Yao, Tongliang Liu, Jianliang Xu, Bo Han, "Unleashing Mask: Explore the Intrinsic Out-of-Distribution Detection Capability".

ICML 2023 [link]: Jianing Zhu, Xiawei Guo, Jiangchao Yao, Chao Du, Li He, Shuo Yuan, Tongliang Liu, Liang Wang, Bo Han, "Exploring Model Dynamics for Accumulative Poisoning Discovery".

ICLR 2023 [link]: Jianing Zhu, Jiangchao Yao, Tongliang Liu, Quanming Yao, Jianliang Xu, Bo Han, "Combating Exacerbated Heterogeneity for Robust Models in Federated Learning".

NeurIPS 2022 (Spotlight)[link]: Jianan Zhou*, Jianing Zhu*, Jingfeng Zhang, Tongliang Liu, Gang Niu, Bo Han, Masashi Sugiyama, "Adversarial Training with Complementary Labels: On the Benefit of Gradually Informative Attacks".

ICLR 2022 [link]: Jianing Zhu, Jiangchao Yao, Bo Han, Jingfeng Zhang, Tongliang Liu, Gang Niu, Jingren Zhou, Jianliang Xu, Hongxia Yang, "Reliable Adversarial Distillation with Unreliable Teachers".

ICLR 2021 (Oral) [link]: Jingfeng. Zhang, Jianing Zhu, Gang Niu, Bo Han, Masashi Sugiyama, Mohan Kankanhalli, "Geometry-aware Instance-reweighted Adversarial Training".

PREPRINTS

ICML 2025 Workshop [link]: <u>Jianing Zhu</u>, Zongze Li, Chandler Squires, Qizhou Wang, Bo Han, Pradeep Ravikumar, "On the Fragility of Latent Knowledge: Layer-wise Influence under Unlearning in Large Language Model".

ArXiv 2024 [link]: <u>Jianing Zhu</u>, Bo Han, Jiangchao Yao, Jianliang Xu, Gang Niu, Masashi Sugiyama, "Decoupling the Class Label and the Target Concept in Machine Unlearning".

NeurIPS 2023 Workshop [link]: Xuan Li*, Zhanke Zhou*, <u>Jianing Zhu*</u>, Jiangchao Yao, Tongliang Liu, Bo Han, "DeepInception: Hypnotize Large Language Model to Be Jailbreaker".

ArXiv 2021 [link]: Jianing Zhu, Jingfeng Zhang, Bo Han, Tongliang Liu, Gang Niu, Mohan Kankanhalli, Masashi Sugiyama, "Understanding the Interaction of Adversarial Training with Noisy Labels".

HONORS AND AWARDS

| • NeurIPS Top Reviewers (Top 8%), NeurIPS | 2023 |
|---|---------------|
| • ICML Best Reviewers (Top 10%), ICML | $2021,\ 2024$ |
| • ICLR Notebale Reviewers, ICLR | 2025 |
| • Yakun Scholarship Scheme for Mainland Postgraduate Students, HKBU | 2024 |
| • Computer Science Department Research Excellence Award, HKBU | 2023 |
| • Computer Science Department RPg Performance Award, HKBU | 2022-2024 |
| • Excellent Teaching Assistant Performance Award, HKBU | 2022-2023 |
| • Nomination of Hong Kong PhD Fellowship Scheme, HKBU | 2021 |
| • University Scholarship, SCU | 2018-2020 |
| • National Scholarship, Ministry of Education | 2018 |

INVITED TALKS

- How AI Leaks Information and How It Can Forget @ UT Austin Digital Trust Symposium Nov. 2025
- Towards Trustworthy Machine Learning for Out-of-distribution Data @ SCU COMP Dec. 2023
- Diversified Outlier Exposure for Out-of-distribution Detection @ HKBU Dec. 2023

Jun./Nov. 2023

2022

• Youth PhD Talk for Conference Work Sharing @ AI Time

COMP3057(UG): Intro to AI and Machine Learning, Autumn

SERVICES

Program Committee & Reviewer:

ICML 2021-2025, NeurIPS 2021-2025, ICLR 2022-2025, ACML 2021-2025, AAAI 2023-2025, IJCAI 2022-2025, AISTATS 2023-2025, TPAMI, JAIR, TMLR, ACM CSUR, TNNLS, MLJ, NN, and so on.

Organization Committee:

| Leading Organizer, TMLR Young Scientist Seminar | 2023-Present |
|---|--------------|
| Workshop Chair Assistant, NeurIPS 2024 | 2024 |
| - Workshop Proposal Reviewer, NeurIPS | 2025 |
| Workshop Assistant, HKBU-COMP & RIKEN-AIP Joint Workshop | 2024 |
| Founder Member of Executive Group, RIKEN TrustML Young Scientist Seminars | 2022-2023 |

MENTORING AND TEACHING

| Mentoring following students: | |
|--|-----------|
| Yuanyi Li (CMU Master) \rightarrow TBD | 2024-2025 |
| Zongze Li (HUST Undergrad) \rightarrow TBD | 2024-2025 |
| Jingwei Sun (XJTU Master) \rightarrow HKBU PhD | 2024-2025 |
| Boxuan Zhang (WHU Master) \rightarrow Rutgers PhD | 2024-2025 |
| Xuan Li (UofSouthampton Master) \rightarrow HKBU PhD | 2023-2024 |
| Geng Yu (SJTU Master) \rightarrow TBD | 2023-2024 |
| Hengzhuang Li (HUST Undergrad) \rightarrow HUST Master | 2022-2023 |
| Teaching assistant on following courses @ HKBU: | |
| COMP7240(PG): Recommender Systems, Autumn | 2022-2023 |
| COMP7160(PG): Research Methods in Computer Science, Autumn | 2022-2023 |
| COMP7250(PG): Machine Learning, Spring | 2022 |
| COMP4135(UG): Recommender Systems and Applications, Autumn | 2022-2023 |