Xilie Xu

Education Background

Aug. 2021 - **Ph.D. Candidate**, Department of Computer Science, School of Computing, Present National University of Singapore, Singapore.

- O Supervisor: Prof. Mohan Kankanhalli.
- Research field: safety in machine learning [1, 2, 3, 4, 5, 6, 7, 8].

Sep. 2017 - Undergraduate, Taishan College, Shandong University, Jinan, China.

Jun. 2021 • Advisor: Prof. Lizhen Cui.

• Research field: adversarial machine learning [9, 10, 11].

Publications

- [1] Zihao Luo*, Xilie Xu*, Feng Liu, Yun Sing Koh, Di Wang, and Jingfeng Zhang. Privacy-preserving low-rank adaptation for latent diffusion models. 2025.
- [2] Keyi Kong*, Xilie Xu*, Di Wang, Jingfeng Zhang, and Mohan Kankanhalli. Perplexity-aware correction for robust alignment with noisy preferences. In *The 38th Neural Information Processing Systems Annual Conference (NeurIPS)*, 2024.
- [3] Xilie Xu, Jingfeng Zhang, and Mohan Kankanhalli. Autolora: A parameter-free automated robust fine-tuning framework. In *The Twelfth International Conference on Learning Representations (ICLR)*, 2024.
- [4] Xilie Xu*, Keyi Kong*, Ning Liu, Lizhen Cui, Di Wang, Jingfeng Zhang, and Mohan Kankanhall. An LLM can fool itself: A prompt-based adversarial attack. In *The Twelfth International Conference on Learning Representations (ICLR)*, 2024.
- [5] Jingfeng Zhang and Xilie Xu. Towards robust foundation models: Adversarial contrastive learning. In *The Third Blogpost Track at ICLR 2024*, 2024.
- [6] Xilie Xu*, Jingfeng Zhang*, Feng Liu, Masashi Sugiyama, and Mohan Kankanhalli. Efficient adversarial contrastive learning via robustness-aware coreset selection. In *The 37th Neural Information Processing Systems Annual Confer*ence (NeurIPS), 2023.
- [7] Xilie Xu*, Jingfeng Zhang*, Feng Liu, Masashi Sugiyama, and Mohan Kankanhalli. Enhancing adversarial contrastive learning via adversarial invariant regularization. In *The 37th Neural Information Processing Systems Annual Conference (NeurIPS)*, 2023.

⁰An asterisk (*) beside authors' names indicates equal contributions.

- [8] Xilie Xu*, Jingfeng Zhang*, Feng Liu, Masashi Sugiyama, and Mohan Kankanhalli. Adversarial attack and defense for non-parametric two-sample tests. In *The 39th International Conference on Machine Learning (ICML)*, 2022.
- [9] Jingfeng Zhang*, Xilie Xu*, Bo Han, Tongliang Liu, Gang Niu, Lizhen Cui, and Masashi Sugiyama. Noilin: Improving adversarial training and correcting stereotype of noisy labels. *Transactions on Machine Learning Research*, 2022.
- [10] Chen Chen*, Jingfeng Zhang*, Xilie Xu, Lingjuan Lyu, Chaochao Chen, Tianlei Hu, and Gang Chen. Decision boundary-aware data augmentation for adversarial training. *IEEE Transactions on Dependable and Secure Computing*, 2022.
- [11] Jingfeng Zhang*, Xilie Xu*, Bo Han, Gang Niu, Lizhen Cui, Masashi Sugiyama, and Mohan Kankanhalli. Attacks which do not kill training make adversarial learning stronger. In *The 37th International Conference on Machine Learning (ICML)*, 2020.

Professional Service

- 2021-Present Conference reviewer at NeurIPS'[21-24], ICML'[22-24], ICLR'[22-25].
- 2022-Present Journal reviewer at TAI, TMLR, IPL.
 - Apr. 2024 **DAAD AInet Fellow**, Germany.
 - Apr. 2023 Create the website of N-CRiPT Technical Workshop 2023 [link] and present a poster at the workshop, National University of Singapore.
 - Oct. 2022 Member of the executive group of TrustML Young Scientist Seminars, RIEKN-AIP, Tokyo.
 - Apr. 2022 Student reviewing member of the Master of Computing admission, School of Computing, National University of Singapore.

Award&Grant

- Jul. 2024 Championship, ICML 2024 TiFA Workshop MLLM Attack Challenge.
- Mar. 2024 **Postgraduate Student Travel Grant**, School of Computing, National University of Singapore.
- Dec. 2023 **Postgraduate Student Travel Grant**, School of Computing, National University of Singapore.
- Oct. 2023 NeurIPS 2023 Scholar Award, NeurIPS 2023.
- Aug. 2022 **Postgraduate Student Travel Grant**, School of Computing, National University of Singapore.
- Aug. 2022 Research Achievement Award, School of Computing, National University of Singapore.
- Jun. 2022 ICML 2022 Participation Grant, ICML 2022.
- Oct. 2021 Outstanding Reviewer Award, NeurIPS 2021.
- Jun. 2021 Outstanding Undergraduate Thesis Award, Shandong University.
- Sep. 2020 Specialty Scholarship (Research Innovation Award), First Prize, Shandong University.

- Sep. 2018 Outstanding Student Scholarship, Shandong University.
- Sep. 2020
- Oct. 2018 First Prize at the 10th Mathematics Competition of Chinese College Student, Chinese Mathematical Society.

Internship

- Jun. 2024 **Quantitative Research Intern**, Baiont Quant, Nanjing, China. Present
- Jun. 2021 **Research Intern**, Department of Ant Group-CRO Line-Security and Risk Jul. 2021 Management, Ant Z Space, Hangzhou, China.
 - o Mentor: Dr. Lingjuan Lyu.
 - Research topic: adversarial machine learning and privacy.
 - Result: Proposed an innovative patent to protect model intellectual property and data privacy.

Teaching

- Jan. 2024 Teaching assistant for CS5342 Multimedia Computing and Applica-
 - May 2024 tions, School of Computing, National University of Singapore.
- Jan. 2024 Teaching assistant for CS3244 Machine Learning, School of Computing,
- May 2024 National University of Singapore.
- Aug. 2023 Teaching assistant for CS3244 Machine Learning, School of Computing,
- Dec. 2023 National University of Singapore.
- Jan. 2022 Teaching assistant for CS5242 Deep Learning and Neural Networks,
- May. 2022 School of Computing, National University of Singapore.