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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].

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

Jun. 2021 $\,\,$ $\circ\,$ Advisor: Prof. Lizhen Cui and Prof. Jingfeng Zhang.

• Research field: adversarial machine learning [6, 7, 8].

Research Work

- [1] Xilie Xu, Keyi Kong, Liu Ning, Cui Lizhen, Wang Di, Jingfeng Zhang, and Mohan Kankanhalli. An LLM can fool itself: A prompt-based adversarial attack. arXiv, 2023.
- [2] Xilie Xu, Jingfeng Zhang, and Mohan Kankanhalli. Autolora: A parameter-free automated robust fine-tuning framework. arXiv preprint arXiv:2310.01818, 2023.
- [3] Xilie Xu*, Jingfeng Zhang*, Feng Liu, Masashi Sugiyama, and Mohan Kankanhalli. Efficient adversarial contrastive learning via robustness-aware coreset selection. In Neural Information Processing Systems Annual Conference (NeurIPS), 2023.
- [4] Xilie Xu*, Jingfeng Zhang*, Feng Liu, Masashi Sugiyama, and Mohan Kankanhalli. Enhancing adversarial contrastive learning via adversarial invariant regularization. In *Neural Information Processing Systems Annual Conference* (NeurIPS), 2023.
- [5] Xilie Xu*, Jingfeng Zhang*, Feng Liu, Masashi Sugiyama, and Mohan Kankanhalli. Adversarial attack and defense for non-parametric two-sample tests. In *International Conference on Machine Learning (ICML)*, 2022.
- [6] 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.
- [7] 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.

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

[8] 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 *International Conference on Machine Learning (ICML)*, 2020.

Professional Service

- 2021-Present Serve as a conference reviewer at NeurIPS'[21-23], ICML'[22-23], ICLR'[22-24].
- 2022-Present Serve as a journal reviewer at TAI, TMLR, IPL.
 - 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 Serve as a member of the executive group of TrustML Young Scientist Seminars, RIEKN-AIP, Tokyo.
 - Apr. 2022 Serve as a student reviewing member of the Master of Computing admission, School of Computing, National University of Singapore.

Award

- 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. 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

- Aug. 2023 Serve as a teaching assistant for CS3244 Machine Learning, School of
- Dec. 2023 Computing, National University of Singapore.
- Jan. 2022 Serve as a teaching assistant for CS5242 Deep Learning and Neural
- May. 2022 Networks, School of Computing, National University of Singapore.