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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, 6].

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 [7, 8, 9].

### Research Work

- [1] 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.
- [2] 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.
- [3] Xilie Xu\*, Keyi Kong\*, Ning Liu, Lizhen Cui, Di Wang, Jingfeng Zhang, and Mohan Kankanhalli. Advglue-gpt: Towards effective and efficient robustness evaluation of large language models. AAAI Workshop on Responsible Language Models, 2024.
- [4] 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 Conference (NeurIPS)*, 2023.
- [5] 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.
- [6] 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.
- [7] Jingfeng Zhang\*, Xilie Xu\*, Bo Han, Tongliang Liu, Gang Niu, Lizhen Cui,

<sup>&</sup>lt;sup>0</sup>An asterisk (\*) beside authors' names indicates equal contributions.

- and Masashi Sugiyama. Noilin: Improving adversarial training and correcting stereotype of noisy labels. *Transactions on Machine Learning Research*, 2022.
- [8] 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.
- [9] 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'[21-23], ICML'[22-24], ICLR'[22-24].
- 2022-Present 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 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

- Dec. 2023 **Postgraduate Student Travel Grant**, 4000 SGD, School of Computing, National University of Singapore.
- Oct. 2023 NeurIPS 2023 Scholar Award, NeurIPS 2023.
- Aug. 2022 **Postgraduate Student Travel Grant**, 3100 SGD, 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. 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.