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RESEARCH FOCUSES

Deep learning: Privacy (Machine unlearning), Adversarial Learning (adversarial attack & defense), Programming language problem (code generation, code understanding) , Computer Vision (image classification, image reconstruction, video understanding, multi-modality), Natural language processing (Large language model, representation learning)
Optimization: Bi-level optimization, Zeroth-order black-box optimization

EDUCATION

Ph.D. Candidate in Computer Science, Michigan State University Aug. 2021– Present.

M.S. in Electrical and Computer Engineering, University of Florida Aug. 2019– May. 2021

B.Eng in Computer Science, Univ. of Science and Technology of China Sep. 2015– July 2019

PUBLICATIONS

Google Scholar

[1] **J. Jia**, J. Liu, et al. "Model sparsity can simplify machine unlearning", *NeurIPS'23 - Spotlight.*

[2] Yihua Zhang, Yimeng Zhang, Aochuan Chen, **Jinghan Jia**, et al. "Selectivity Drives Productivity: Efficient Dataset Pruning for Enhanced Transfer Learning", *NeurIPS'23*

[3] **J. Jia**, S. Srikant, T. Mitrovska, S. Chang, S. Liu, U. O'Reilly, "Having Both: Robust and Accurate Code Models", *SANER'23*

[4] B. Hou, **J. Jia**, Y.Zhang, G.Zhang, S. Liu, S. Chang, "TextGrad: Advancing Robustness Evaluation in NLP by Gradient-Driven Optimization", *ICLR'23*

[5] Y Zhang, X Chen, **J Jia**, S Liu, K Ding, Text-Visual Prompting for Efficient 2D Temporal Video Grounding, *CVPR'23*

[6] H Li, **J Jia**, S Liang, Y Yao, S Ravishankar, S Liu, SMUG: Towards robust MRI reconstruction by smoothed unrolling, *ICASSP'23*

[7] **J Jia**, Y Zhang, D Song, S Liu, A Hero, Robustness-preserving Lifelong Learning via Dataset Condensation, *ICASSP'23*

[8] **J. Jia**, M. Hong, Y. Zhang, M. Akçakaya, S. Liu, On the Robustness of deep learning-based MRI Reconstruction to image transformations, *NeurIPS'22 workshop*

[9] Y. Zhang, Y. Yao, **J. Jia**, J. Yi, M. Hong, S. Chang, S. Liu, "How to Robustify Black-Box ML Models? A Zeroth-Order Optimization Perspective", International Conference on Learning Representation *ICLR'22 - Spotlight*

[10] **J Jia**, C Zhang, B Yaman, S Moeller, S Liu, M Hong, M Akçakaya, "On Instabilities of Conventional Multi-Coil MRI Reconstruction to Small Adverserial Perturbations", International Society for Magnetic Resonance in Medicine *ISMRM'21 - Oral*

ACADEMIC ACTIVITIES

- **Contributors to code demos** for NeurIPS'22 tutorial: Foundational Robustness of Foundation Models.
- **Reviewer**: ICASSP'22, ICML'22, ICLR'22, NeurIPS'22, CVPR, NeurIPS'23
- **TPC** for KDD'22 Workshop 4th Workshop on Adversarial learning Methods for Machine learning and Data Mining
- **Student Chair** for ICML'22 and ICML'23 Workshop AdvML:New Frontiers in Adversarial Machine Learning.

WORK EXPERIENCE

- Applied Science Intern, Amazon 2023.
- Machine Learning Algorithm Engineering Intern, Zoom 2018

SKILLS

- **Programming Languages** Python, MATLAB, C++, Java, C
- **Libraries** Pytorch, Huggingface, TensorFlow, Numpy, Matplotlib,