# Chongyu Fan

## Ph.D. Student in Computer Science

#### **Personal Information**

I am a second-year Ph.D. student in computer science at Michigan State University advised by Dr. Sijia Liu. My research focuses on trustworthy and efficient algorithms, including machine unlearning and efficient reasoning.

## **Education Experience**

#### **Doctor of Computer Science**

2024.08 - Present

Michigan State University, East Lansing, USA

Advisor: Dr. Sijia Liu

 $OPTML\ Lab$ 

## Bachelor of Engineering

2020.09 - 2024.06

Huazhong University of Science and Technology, Wuhan, China

 $Outstanding\ Graduate$ 

GPA: 3.96/4.0

## Work Experience

#### Research Scientist Intern

2025.05 - 2025.08

ByteDance, San Jose, USA Advisor: Dr. Jian Du

#### **Publications**

#### **Conference Papers**

- [C1] <u>C. Fan\*</u>, J. Liu\*, Y. Zhang, D. Wei, E. Wong, S. Liu. Salun: Empowering machine unlearning via gradient-based weight saliency in both image classification and generation. 12th International Conference on Learning Representations (ICLR'24 Spotlight), [PDF], [Code], [Website].
- [C2] <u>C. Fan\*</u>, J. Liu\*, A. Hero, S. Liu. *Challenging forgets: Unveiling the worst-case forget sets in machine unlearning.* 18th European Conference on Computer Vision (ECCV'24), [PDF], [Code].
- [C3] Y. Zhang, C. Fan, Y. Zhang, Y. Yao, J. Jia, J. Liu, G. Zhang, G. Liu, R. Kompelia, X. Liu, S. Liu. UnlearnCanvas: Stylized Image Dataset for Enhanced Machine Unlearning Evaluation in Diffusion Models. 30th Annual Conference on Neural Information Processing Systems (Neurips'24), [PDF], [Code], [Website].
- [C4] Y. Zhang, X. Chen, J. Jia, Y. Zhang, <u>C. Fan</u>, J. Liu, M. Hong, K. Ding, S. Liu.. *Defensive Unlearning with Adversarial Training for Robust Concept Erasure in Diffusion Models*. 30th Annual Conference on Neural Information Processing Systems (Neurips'24), [PDF], [Code].
- [C5] <u>C. Fan\*</u>, J. Jia\*, Y. Zhang, A. Ramakrishna, M. Hong, S. Liu. *Towards LLM Unlearning Resilient to Relearning Attacks: A Sharpness-Aware Minimization Perspective and Beyond.*, 42th International Conference on Machine Learning (ICML'25), [PDF], [Code].
- [C6] C. Wang\*, C. Fan\*, Y. Zhang, J. Jia, D. Wei, P. Ram, N. Baracaldo, S. Liu. Reasoning Model Unlearning: Forgetting Traces, Not Just Answers, While Preserving Reasoning Skills., The 2025 Conference on Empirical Methods in Natural Language Processing (EMNLP'25 Main), [PDF], [Code].

## **Preprint Papers**

- [P1] <u>C. Fan\*</u>, J. Liu\*, L. Lin\*, J. Jia, R. Zhang, S. Mei, S. Liu. *Simplicity Prevails: Rethinking Negative Preference Optimization for LLM Unlearning.* [PDF], [Code].
- [P2] <u>C. Fan</u>, Y. Zhang, J. Jia, A. Hero, S. Liu. *CyclicReflex: Improving Large Reasoning Models via Cyclical Reflection Token Scheduling.* [PDF], [Code].
- [P3] J. Jia, H. Reisizadeh, <u>C. Fan</u>, N. Baracaldo, M. Hong, S. Liu. *EPiC: Towards Lossless Speedup for Reasoning Training through Edge-Preserving CoT Condensation*. [PDF], [Code].
- [P4] J. Lee, Z. Mai, <u>C. Fan</u>, WL. Chao. An Empirical Exploration of Continual Unlearning for Image Generation. [PDF].

## **Professional Activities**

• Reviewer: NeurIPS, ICLR, ICML, AISTATS