

YIFEI WANG

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EDUCATION

Peking University

B.S. in Artificial Intelligence, Honors Program

Sep. 2021 – Jun. 2025 (Expected)

Beijing, China

- GPA: 3.70/4.00
- *Relevant Coursework:* Stochastic Calculus (A-), Convex Optimization (A), Generative Models (A), Computer Network (Honors Track, A), Natural Language Processing (A), Computer Vision (A-)

RESEARCH EXPERIENCE

Learning Generative Models from Corrupted Data

Supervised by Prof. He Sun & Prof. Wenzheng Chen at Peking University

May. 2023 – Present

Beijing, China

- Use amortized inference and expectation-maximization algorithm to iteratively learn a clean diffusion model that can serve as the data prior.
- Compared with baseline models that also learn from noisy data and outperformed their generated results on natural images.
- Implement the codebase of the conditional normalizing flow model from scratch, and combine its training step with a diffusion model using amortize inference loss.
- I propose different weighting schedules for diffusion model for the E-step and the M-step, which significantly improves the generated results.

Efficient Algorithms for Secure LLM Inference

Supervised by Prof. Meng Li at Peking University

Aug. 2024 – Present

Beijing, China

- I focus on accelerating large language model inference under the privacy-preserving inference setting. I approximate nonlinear functions with polynomial functions and fine-tune the model with LoRA to enhance the computational efficiency.
- Evaluate performance of baselines' approximation for nonlinear functions like GeLU, softmax as well as layernorm on sentence generation and sequence classification datasets like Wikitext and Winogrande.
- Adapt Huggingface code for Llama efficient training and replace the nonlinear functions with polynomial approximations.

PUBLICATIONS

Weimin Bai, **Yifei Wang**, Wenzheng Chen and He Sun. *An Expectation-Maximization Algorithm for Training Clean Diffusion Models from Corrupted Observations*. **NeurIPS 2024** [Link](#).

Yifei Wang, Weimin Bai, Weijian Luo, Wenzheng Chen and He Sun. *Integrating Amortized Inference with Diffusion Models for Learning Clean Distribution from Corrupted Images*. **(In submission)** [Link](#).

HONORS AND AWARDS

Academic Excellence Award (Top 10%)

Sep. 2024

Outstanding Freshman Scholarship – 1st Prize (Top 1%)

Sep. 2021

SKILLS AND INTERESTS

Programming: Proficient in Python (PyTorch), C/C++, \LaTeX ; Familiar with CUDA.

Languages: Chinese (Native), English (Fluent, TOEFL 106)

Interests: Marathon Running (Completed half marathon in 95 minutes); Writing Blogs (50k+ page views and 5k+ stars)