Geng Yu

+86 13148800538 | warriors30@sjtu.edu.cn | Homepage | Google Scholar | GitHub

RESEARCH INTEREST

My research interests lie in **trustworthy**, **agentic** and **efficient AI**, especially in efficient training and inference of foundation models, including large language models and diffusion language models.

EDUCATION

Shanghai Jiao Tong University, China Sep. 2023 – Mar. 2026 (expected)
M.Eng. in Information and Communication Engineering GPA: 3.01/4.0 (transcript)
Advisor: Jiangchao Yao

Shanghai Jiao Tong University, China Sep. 2019 – Jun. 2023
B.Eng. in Information Engineering GPA: 3.89/4.3 (transcript)

PUBLICATIONS

(* indicates the equal contribution.)

Wide-In, Narrow-Out: Revokable Decoding for Efficient and Effective DLLMs [paper] [**arXiv 2025**]
Feng Hong*, **Geng Yu***, Yushi Ye, Haicheng Huang, Huangjie Zheng, Ya Zhang, Yanfeng Wang, Jiangchao Yao

Self-Calibrated Tuning of Vision-Language Models for Out-of-Distribution Detection [paper] [**NeurIPS 2024**]
Geng Yu, Jianing Zhu, Jiangchao Yao, Bo Han

Sandbox: safeguarded multi-label learning through safe optimal transport [paper] [**Machine Learning Journal 2024**]
Lefei Zhang*, **Geng Yu***, Jiangchao Yao, Yew-soon Ong, Ivor W. Tsang, James T. Kwok

Diversified Outlier Exposure for Out-of-Distribution Detection via Informative Extrapolation [paper] [**NeurIPS 2023**]
Jianing Zhu, **Geng Yu**, Jiangchao Yao, Tongliang Liu, Gang Niu, Masashi Sugiyama, Bo Han

RESEARCH EXPERIENCE

Diversified Outlier Exposure for Out-of-Distribution Detection Shanghai Jiao Tong University
Advisor: Jiangchao Yao, Bo Han Feb. 2023 – Sep. 2023

- This work proposes a new outlier exposure framework that diversifies the surrogate OOD distribution based on the limited auxiliary outliers to achieve better out-of-distribution detection. It has been accepted in **NeurIPS 2023**.

Multi-label Learning With Label Noise Via Optimal Transport Shanghai Jiao Tong University
Advisor: Jiangchao Yao Sep. 2023 – Sep. 2024

- This work proposes a label-noise learning method that iteratively refines the noisy labels under the framework of optimal transport. It has been accepted in **Machine Learning Journal 2024**.

Prompt-Tuning Vision-Language Models for Out-of-Distribution Detection Shanghai Jiao Tong University
Advisor: Jiangchao Yao Feb. 2024 – Sep. 2024

- This work proposes a prompt-tuning framework for vision-language models to mitigates the problem of inaccurate surrogate OOD features to achieve better OOD detection. It has been accepted in **NeurIPS 2024**.

Online Data Selection for Acceleration of Language Model Pretraining RIKEN AIP
Advisor: Gang Niu, Masashi Sugiyama Oct. 2024 – Sep. 2025

- This work proposes a sequence-length-based online data selection method to accelerate language model pretraining. It is currently **under review**.

Continual Pretraining on Science Domain with MoE Upcycling Shanghai Jiao Tong University
Advisor: Linfeng Zhang Apr. 2025 – Jul. 2025

- This work presents a Mixture-of-Experts language model, based on Qwen2.5-7B and continually pretrained on data in the science domain, with different experts for knowledge in different disciplines. It has been released on **arXiv**.

Revokable Decoding for Efficient Diffusion Large Language Model Shanghai Jiao Tong University
Advisor: Jiangchao Yao May. 2025 – Jul. 2025

- This work proposes a training-free algorithm that enables revokable decoding in diffusion large language models to improve the speed-quality tradeoff. It has been released on **arXiv**.

SKILLS

Programming: Python, PyTorch, C++, MATLAB, LaTeX

Languages: Chinese (native), English (TOEFL 109: R30 L28 S23 W28).

HONORS AND AWARDS

- Shanghai Jiao Tong University Merit Scholarship 2020 – 2025
- Shanghai Jiao Tong University Outstanding Undergraduate 2023
- Shanghai Jiao Tong University Merit Student 2021