Geng Yu

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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

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 that 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