Yuting Li

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Education

China Three Gorges University 2022 – Present
- M.Eng. in Computer Science

China Three Gorges University 2018 – 2022
- B.Eng. in Electronic Information Engineering

Selected awards and honors

- **Fisrt Place** of Semantic Shift Benchmark (SSB) challenge: Open-Set Recognition Track at **ECCV**, 2024.
- **Competition Expert** in Kaggle.(**Top 1.8% worldwide**)
- Recipient of **Academic Scholarship** from China Three Gorges University, 2022–2024.
- **Excellent Graduate** of China Three Gorges University in both 2022 and 2025.

Academic Papers

SURE: SUrvey REcipes for building reliable and robust deep networks. **CVPR 2024**
Yuting Li, Yingyi Chen, Xuanlong Yu, Dexiong Chen, Xi Shen **(Accepted)**

HTR-VT: Handwritten Text Recognition with Vision Transformer. **Pattern Recognition 2025**
Yuting Li, Dexiong Chen, Tinglong Tang, Xi Shen **SCI Q1 (Accepted)**

Vision Matters: Simple Visual Perturbations Can Boost Multimodal Math Reasoning. **NeurIPS 2025**
(Under Review)
Yuting Li, Lai Wei, Kaipeng Zheng, Jingyuan Huang, Linghe Kong, Lichao Sun, Weiran Huang

IDER: IDempotent Experience Replay for Reliable Continual Learning. **NeurIPS 2025**
Zhanwang Liu*, ***Yuting Li****(Project lead)*, Haoyuan Gao, Yexin Li, Linghe Kong, (Under Review)
Lichao Sun, Weiran Huang

Unsupervised Post-Training for Multi-Modal LLM Reasoning via GRPO. **NeurIPS 2025**
Lai Wei, ***Yuting Li***, Chen Wang, Yue Wang, Linghe Kong, Weiran Huang, Lichao Sun (Under Review)

Advancing Multimodal Reasoning via Reinforcement Learning with Cold Start. **NeurIPS 2025**
Lai Wei, ***Yuting Li***, Kaipeng Zheng, Chen Wang, Yue Wang, Linghe Kong, (Under Review)
Lichao Sun, Weiran Huang

Agentic Robot: A Brain-Inspired Framework for Vision-Language-Action Models in Embodied Agents. **NeurIPS 2025**
(Under Review)
Zhejian Yang, Yongchao Chen, Xueyang Zhou, Jiangyue Yan, Dingjie Song, Yinuo Liu, ***Yuting Li***, Yu Zhang, Pan Zhou, Hechang Chen, Lichao Sun

Research Experience

Continual Learning in real-world scenarios Sep 2024 – Present
MIFA Lab, Shanghai Jiao Tong University **Supervised by Prof. Weiran Huang**
- To address the challenge of **catastrophic forgetting** in continual learning, proposed a **novel experience replay framework** leveraging the idempotent property, achieving **SOTA** performance across sequential tasks.
- To address the lack of **real-world benchmarks**, introduced a new continual learning benchmark with a **high-quality** open-source codebase, establishing a standardized evaluation platform.

Multi-modal LLM reasoning Sep 2024 – Present
MIFA Lab, Shanghai Jiao Tong University **Supervised by Prof. Weiran Huang**
- To address **poor visual integration** in MLLMs during reasoning, proposed a **simple** visual perturbation framework for SFT, DPO, and GRPO, achieving **2–5%** performance gains.

- To address **costly annotation** in multi-modal learning, proposed a fully **label-free** framework achieving **competitive performance with supervised method**.

Vision-Language-Action Models in Embodied Agents Aug 2024 – May 2025
Jilin University & Lehigh University **Supervised by Prof. Lichao Sun**

- To mitigate **error accumulation** on long-horizon tasks, proposed a brain-inspired agentic framework that incorporates structured coordination protocols and achieved average **success rate of 79.6%**.

Uncertainty estimation in real-world scenarios Sep 2023 – Sep 2024
Intellindust & Max Planck Institute **Supervised by Dr. Xi Shen**

- To address over-confident issues, proposed a **simple and effective** approach named SURE, spanning model regularization, classifier and optimization for building reliable and robust deep networks.
- Achieved **SOTA** performance in **failure prediction** across various datasets and model architectures. Obtained results **comparable to SOTA** models on long-tailed and noisy label benchmarks, **without requiring any task-specific adaptation**.
- Successfully applied SURE to **real-world applications**, including fall detection and fire/smoke detection, **significantly reducing** the false positive rate.

Handwritten Text Recognition Jun 2023 – Sep 2024
Tencent AI Lab & Intellindust **Supervised by Dr. Xi Shen**

- Due to **limited availability of labeled**, developed a simple and **data-efficient** baseline for handwritten text recognition, solely using Vision Transformer and CTC Loss and achieving **SOTA** performance.
- Implemented a clean and **high-quality codebase** that has received positive feedback on GitHub.

Industry Experience

Intellindust Sep 2023 – Sep 2024
Deep Learning Algorithm Intern **Advisor: Dr. Xi Shen**

- Contributed to the development of algorithms for fall detection and fire/smoke detection cameras.
- Assisted in the development of an automated training platform.

Tencent AI Lab Jun 2023 – Sep 2023
Deep Learning Algorithm Intern **Advisor: Dr. Xi Shen**

- Engaged in dataset engineering tasks including collection, alignment, and noise removal for 3D human motions.
- Contributed to the testing phase of the T2M-GPT project, ensuring code reliability and functionality.

National Clinical Research Center for Cancer Feb 2023 – Jun 2023
Data Science Intern **Advisor: Dr. Hua Jing**

- Performed named entity recognition, relation extraction, and entity alignment on clinical oncology-related data.
- Improved oncology data quality through daily cleaning and iterative rule refinement.

Skills

Programming: Python(Pytorch and Jax), Matlab, HTML, Latex. **Over 200 GitHub stars achieved.**

Language: English: Fluent(TOEFL 92), French: Elementary, Chinese: Native

Writing: Achieved over 110,000 views on technical blog posts published on CSDN.

Academic Service

Reviewer: CVPR 2025, Pattern Recognition

Presentation: Presentation at CVPR 2024 and ECCV 2024 OOD-CV Workshop (Challenge Winners Session).

Patent

- **A training method, device and electronic equipment for image classification model.** (CN117994611A)
- **A text recognition method and system, corresponding apparatus, electronic device, and computer-readable storage medium.** (CN117218638A)