Yanshu Li

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Education

Brown University, MS in Computer Science — Sept 2024 – present

- GPA: 4.0/4.0
- **Core Modules:** Machine Learning, Natural Language Processing, Self-supervised Learning

Soochow University, China Mainland, BS in Artificial Intelligence — Sept 2020 – June 2024

- GPA: 3.8/4.0 (top 5%), TOEFL:107, GRE:332
- **Core Modules:** Artificial Intelligence, Machine Learning, Natural Language Processing, Computer Vision, Large Language Model

Publications

Unlock the Power of Cross-modality In-context Learning for Large Vision-language Models — Jan 2025

Yanshu Li, Jianwen Luo, Wenquan Lu

Accepted by NAACL 2025 Main

ConflictBank: A Benchmark for Evaluating Knowledge Conflicts in Large Language Models — Sept 2024

Zhaochen Su, Jun Zhang, Xiaoye Qu, Tong Zhu, ***Yanshu Li***, Jiashuo Sun, Juntao Li, Min Zhang, Yu Cheng

Accepted by NeurIPS 2024

Multimodal In-context Learning Needs Task Mapping — Jan 2025

Yanshu Li, Tian Yun, Ruixiang Tang, Jinfa Huang

Submitted to ACL 2025

M-ABSA: A Multilingual Dataset for Aspect-Based Sentiment Analysis — Jan 2025

ChengYan Wu, Bolei Ma, Yihong Liu, Zheyu Zhang, Ningyuan Deng, ***Yanshu Li***, Baolan Chen, Yi Zhang, Barbara Plank, Yun Xue

Submitted to ACL 2025

Unveiling and Enhancing Multimodal In-context Learning in Complex Vision-language Tasks — Jan 2025

Yanshu Li, Yu Cheng, Zhaochen Su, Jianwen Luo

Submitted to ICML 2025

MEDAIDE: Towards an Omni Medical Aide via Specialized LLM-based Multi-Agent Collaboration — Jan 2025

Jinjie Wei, Dingkang Yang, ***Yanshu Li***, Qingyao Xu, Zhaoyu Chen, Mingcheng Li, Yue Jiang, Xiaolu Hou, Lihua Zhang

Submitted to ICML 2025

Research Experience

Research on multimodal in-context learning, Brown University — July 2024 – Present

- Explore the in-context learning mechanisms of multimodal large models by investigating their internal workflows, focusing on the impact of external knowledge on transformers' internal attention and hidden layers.
- Enhance the in-context learning capabilities of LLMs and MLLMs by optimizing in-context demonstration selection, leveraging chain-of-thought (CoT) reasoning, and strengthening modality alignment.

Research on equipping LLMs with human-level temporal reasoning and commonsense, Soochow University — June 2023 – Present

- Focus on the mechanisms behind LLMs degradation in time and exploring the strategies to improve temporal generalization and update the knowledge without catastrophic forgetting of old knowledge.

Research on sentiment analysis based on language models in human-centered NLP, Summer Intern, Nanyang Technological University, Singapore — July 2022 – Nov 2022

- Design efficient methods to process large-scale social text data using LM and LLM and analyze the results to provide feedback, seeking high-quality solutions for social issues.

Projects

Google-Fast or Slow? Predict AI Model Runtime — Silver Medal (top 4%)

- Developed a Graph Convolutional Network (GCN) model with embedding encoding for discrete attributes and ListMLE loss for training to address sorting-related challenges. Enhanced model performance through weighted fusion of multiple models to reduce bias and improve robustness.

Kaggle-LLM Science Exam — Bronze Medal (top 7%)

- Employed a sentence vector approach to extract the most similar original text based on prompt similarity for better question references. Developed a reading comprehension model with novel linguistic approach.