Shangjian Yin

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OVERVIEW

As a dedicated and collaborative computer science student, I have a strong passion for artificial intelligence and natural language processing. Throughout my undergraduate studies, I have honed essential skills in programming, algorithm analysis, and machine learning. My academic journey includes extensive research training at the university's NLP Lab and an internship at UVA, resulting in the publication of more than ten academic papers, both peer-reviewed and currently under review. My efforts have also been recognized with multiple prestigious competition awards and academic scholarships.

EDUCATION

South China Agriculture University

B.S. Computer Science

Sep. 2021 – June 2025 Current GPA: 4.17/5

Main Courses

Linear Algebra, Probability & Statistics, Data Structures, Operating Systems, Computer Organization,, Discrete Structures, Database Systems, Machine Learning.

Research Experience

Research Assistant, South China Agricultural University

April 2022 - May 2024

Supervisors: Prof. Peijie Huang and Prof. Yuhong Xu

Outline: Initially supported senior colleagues across various research tasks, before concentrating on Multi-Intent Spoken Language Understanding (SLU) and Large Language Models (LLMs).

Research Intern, The University of Virginia

May 2024 - Present

Supervisor: Assistant Professor Yu Meng

Outline: Conducting research on large language models (LLMs) with an emphasis on enhancing efficiency. Key focus areas include synthetic data generation and self-improvement in LLMs.

PUBLICATION

- [1] Shangjian Yin, Peijie Huang, Yuhong Xu. "Uni-MIS: United Multiple Intent Spoken Language Understanding via Multi-View Intent-Slot Interaction". The 38th Annual AAAI Conference on Artificial Intelligence, Main Conference.
- [2] Shangjian Yin, Peijie Huang, Dongzhu Liang, Zhuoqi He, Qianer Li, Yuhong Xu. "A Multi-Intent Fusion Framework for Joint Intent Detection and Slot Filling". Journal of Chinese Information Processing. Recommended from proceedings of the 23th China National Conference on Computational Linguistics, Main Conference.
- [3] Qianer Li, Peijie Huang, Yuhong Xu, Jiawei Chen, Yuyang Deng, Shangjian Yin. "Generating and Encouraging: An Effective Framework for Solving Class Imbalance in Multimodal Emotion Recognition Conversation". Engineering Applications of Artificial Intelligence.
- [4] Shangjian Yin, Zhepei Wei, Xinyu Zhu, Wei-Lin Chen, Yu Meng. "Self-Alignment Optimization for Language Models". *Under review (submitted to ICLR 2025)*.
- [5] Shangjian Yin, Peijie Huang, Xinming Chen, Yuhong Xu. "Bidirectional Large Language Model for Multi-Task Understanding". Under review (submitted to ICLR 2025).

- [6] Shangjian Yin, Peijie Huang, Yuhong Xu, Haojing Huang, Jiatian Chen. "ECLM: Entity Level Language Model for Spoken Language Understanding with Chain of Intent". Under review (submitted to COLING 2025).
- [7] Shangjian Yin, Peijie Huang, Yuhong Xu. "MIDLM: Multi-Intent Detection with Large Language Models through Global Attention". Under review (submitted to COLING 2025).
- [8] Shangjian Yin, Peijie Huang, Xiaoyue Liu, Jiatian Chen, Yuhong Xu. "Bridging Theory and Practice in Multimodal Deep Learning: A Comprehensive Review in the Large Language Model Era".

 Under review (submitted to COLING 2025).
- [9] Zhanbiao Zhu, Peijie Huang, Shangjian Yin, Qianer Li, Yuhong Xu. "Joint-Span: Unified Span-level Joint Model for Multiple Intent Detection and Slot Filling". Under review (submitted to AAAI 2025).
- [10] Zhanbiao Zhu, Peijie Huang, Haojing Huang, Yuhong Xu, Piyuan Lin, Leyi Lao, Shaoshen Chen, Haojie Xie, Shangjian Yin. "ELSF: Entity-Level Slot Filling Framework for Joint Multiple Intent Detection and Slot Filling". Under review (submitted to TASLP, minor revision).
- [11] Dongzhu Liang, Peijie Huang, Jiaying Liu, Shaoshen Chen, Shangjian Yin, Yuhong Xu. "SpanAL: Span Anchor Learning Framework for Slot Confusion Problem in Spoken Language Understanding". Under review (submitted to COLING 2025).

ACADEMIC ACTIVITIES

- In August 2023, participated in the 23rd China National Conference on Computational Linguistics held in Harbin, China, and presented an academic poster titled "A Multi-Intent Fusion Framework for Joint Intent Detection and Slot Filling".
- In February 2024, attended the 38th AAAI Conference on Artificial Intelligence in Vancouver, Canada, and showcased an academic poster titled "Uni-MIS: United Multiple Intent Spoken Language Understanding via Multi-View Intent-Slot Interaction".

SKILLS & SPECIALTIES

Languages: Proficient in English (IELTS 6.5); Native in Mandarin and Cantonese

Programming: Python, Java, C++, Vue.js, Bash, Markdown, LATEX

Deep Learning: Proficiency in PyTorch; Experience with LLM Fine-Tuning (SFT, DPO)

Interests: Music, Table Tennis, Badminton, Swimming

Service: NLPCC24, EMNLP24, ICLR25

AWARDS & HONOURS

Third Scholarship, South China Agricultural University	Oct 2023
First Prize in 14th Blue Bridge Cup National Competition	May 2023
Third Prize in Market Research and Analysis Competition, Zhengda Cup	Apr 2023
Second Prize in 3th Greater Bay Area Cup, Financial Mathematics Modeling	Dec 2022
Third Prize in National College Students' Mathematics Modeling Competition	Sep 2022