Shangjian Yin

OVERVIEW

I am a dedicated and collaborative computer science student with a strong passion for artificial intelligence and natural language processing. Throughout my undergraduate studies, I have built a solid foundation in programming, algorithm analysis, and machine learning. My academic journey includes extensive research experience at the university's Language Intelligence Lab, focusing on Spoken Language Understanding (SLU) and its interaction with Large Language Models (LLMs). I am also currently interning at the University of Virginia, where I am working on the development of effective LLMs. These experiences have resulted in co-authoring around ten academic papers, published or under submission, further fueling my academic ambitions. My efforts have also been recognized through 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, Object-Oriented Programming.

Research Experience

Research Assistant, South China Agricultural University

April 2022 - May 2024

Supervisors: Associate Professors Peijie Huang and Yuhong Xu

Outline: I initially supported senior students with research tasks, laying the foundations for coding practices and research methodologies. Later, I conducted independent research on SLU and its integration with LLMs.

Research Intern, The University of Virginia

June 2024 - Present

Supervisor: Assistant Professor Yu Meng

Outline: I am currently conducting research on data-centric effective LLMs, focusing on self-synthesizing data to align LLMs with human preferences, without relying on expensive external labeled tools.

PUBLICATION

- [1] Shangjian Yin, Peijie Huang, Yuhong Xu. "MIDLM: Multi-Intent Detection with Bidirectional Large Language Models". The 31st International Conference on Computational Linguistics, Main Conference (COLING'25).
- [2] 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 (AAAI'24).
- [3] Shangjian Yin, Peijie Huang, Dongzhu Liang, Zhuoqi He, Qianer Li, Yuhong Xu. "A Multi-Intent Fusion Framework for Joint Intent Detection and Slot Filling". The 23th China National Conference on Computational Linguistics, Main Conference (CCL'23).
- [4] 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". *IEEE/ACM Transactions on Audio, Speech, and Language Processing (TASLP)*.

- [5] 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 (EAAI).
- [6] Shangjian Yin, Zhepei Wei, Xinyu Zhu, Wei-Lin Chen, Yu Meng. "Self-Alignment Optimization for Language Models". Under review (submitted to ICLR'25).
- [7] Shangjian Yin, Peijie Huang, Xinming Chen, Yuhong Xu. "Bidirectional Large Language Model for Multi-Task Understanding". Under review (submitted to ICLR'25).
- [8] Shangjian Yin, Peijie Huang, Yuhong Xu, Haojing Huang, Jiatian Chen. "ECLM: Entity-Level Large Language Model for Spoken Language Understanding with Chain of Intent". Under review.
- [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.
- [10] Dongzhu Liang, Peijie Huang, Jiaying Liu, Shaoshen Chen, Shangjian Yin, Yuhong Xu. "SpanAL: Span Anchor Learning Framework for Spoken Language Understanding". *Under review*.

ACADEMIC ACTIVITIES

- In August 2023, I presented an academic poster titled "A Multi-Intent Fusion Framework for Joint Intent Detection and Slot Filling" at the CCL'23 in Harbin, China.
- In February 2024, I showcased an academic poster titled "Uni-MIS: United Multiple Intent Spoken Language Understanding via Multi-View Intent-Slot Interaction" at the AAAI'24 in Vancouver, Canada.

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: Experienced with PyTorch and LLM Fine-Tuning (SFT, RLHF)

Interests: Music, Table Tennis, Badminton, Swimming Reviewer: NLPCC'24, EMNLP'24, COLING'25, ICLR'25

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