Haoran Sun

Chengdu, Sichuan | E-mail: 15046178087@163.com | Tel: (+86)15046178087 | **Research: AI, LLM, NLP**

EDUCATION

University of Electronic and Science Technology of China, Software Engineering Sept 2022 – June 2026

- **GPA:** 3.86/4.0 (88.27/100)
- **Coursework:** Artificial Intelligence 94, Probability and Mathematical Statistics 94, Embedded System Design 93, Compiling Technique 91, Computer Architecture 93, Computer Networks System 94, Calculus 90, Linear Algebra and Space Analytic Geometry 87, Program Design and Algorithm Foundation 94, Software Engineering Training 89.
- **IELTS:** 6.5

PUBLICATIONS

1. H-MEM: Hierarchical Memory for High-Efficiency Long-Term Reasoning in LLM Agents May 2025

Haoran Sun (First Author), Shaoning Zeng, Bob Zhang

ARR- oa:3, meta:3 arXiv:2507.22925

2. CourseAgent: An AI Agent for End-to-End Course Generation of Software Programming Aug 2025

Wen Huang, Liu Chen, ***Haoran Sun***, Shaoning Zeng

CEISEE2025, Accept

3. Uncertainty-Driven Adaptive Self-Alignment of Large Language Models Jul 2025

Haoran Sun (First Author), Zekun Zhang, Shaoning Zeng, Bob Zhang

AAAI2026, Submitted arxiv: 2507.17477

4. A Dual-Phase Self-Evolution Framework for Large Language Models Jul 2025

Haoran Sun (First Author), Zekun Zhang, Shaoning Zeng

AAAI2026, Submitted arxiv: 2507.15281

5. Preference-Aware Memory Update for Long-Term LLM Agents Jul 2025

Haoran Sun (First Author), Zekun Zhang, Shaoning Zeng,

AAAI2026, Submitted

6. Enhancing Multi-Agent Reasoning Collaboration with Swarm Intelligence Algorithms Jan 2025

Haoyu Bian, Chaoning Zhang, Xudong Wang, ***Haoran Sun***, Shaoning Zeng, Guoqing Wang, Yang Yang, Heng Tao Shen

AAAI2026, Submitted

7. SD-PSFNet: Sequential and Dynamic Point Spread Function Network for Image Deraining Jan 2025

Haoyu Bian, ***Haoran Sun***, Shaoning Zeng

AAAI2026, Submitted

8. DatasetAgent: A Novel Multi-Modal Agent for Auto-Constructing Datasets from Real-World Images Dec 2024

Haoran Sun (First Author), Haoyu Bian, Yunbo Rao, Shaoning Zeng, Lin Mei, Xu Xu, Jianping Gou

arXiv:2507.08648

9. Introspection of Thought by Coding Prompts Helps AI Agents Oct 2024

Haoran Sun (First Author), Shaoning Zeng, Jianhang Zhou

arxiv:2507.08664

PATENT

Method for constructing image classification data based on Multi-Modal Machine Learning Agent Jan 2025

Under Review, Application Number: 2025100828195

RESEARCH EXPERIENCE

Summer short-term training, Nanyang Technological University, Singapore June 2023

- Analysis of CT images of COVID-19 pneumonia lungs using LLM and multiple deep learning models. Detecting lesions in CT images to determine the CT images of patients with COVID-19 achieved an accuracy rate of 89.7%.
- Received 95 points, rated as Excellent

AI Engineer, LLM Development, Yangtze Delta Region Institute (Huzhou) June 2024 – Aug 2025

- Researched LLM and produced 9 papers and 1 patent
- Research on LLM related technologies and prompt word engineering
- Participate in multiple projects, including automatically construct image datasets agent, Introspection of Thought Reasoning Framework, automatically build bid document agents, text segmentation agents, research on AI agent technology for multi-source fusion intelligence collection and threat correlation analysis, etc. , and undertake design and implementation work.

INTERNSHIP EXPERIENCE

Software Developer, Jiangsu Ruisheng Optoelectronic Technology Co., LTD, Singapore Dec 2022 - Mar 2023

- Participate in the practical learning and development of software engineering projects.
- Participated in the front-end and back-end design and development of the company's internal website interface for external display.

AI Engineer, LLM Development, Harbin XinGuang optic-electronics Technology Co.,LTD Dec 2023 – Mar 2024

- Researched LLM and Multi-Agent system
- Research on LLM related technologies and prompt word engineering
- In cooperation with Shanghai Jianjing Group, we have developed a bid document generation agent system. This system can utilize large models to perform long text segmentation, generation, and assembly. It can generate high-quality, adaptive bid documents based on imported excellent bid templates.

PROJECTS

Research on TB-level High-Efficiency, Secure and Long-Lasting Memory System Mar 2025
(The National Key Research and Development Program "Advanced Computing and Emerging Software" special project)

- Participated in Task 3 of Topic 3 in the National Key Research and Development Program, focusing on the availability research of persistent memory through hardware-software co-design. Developed a data crash consistency protection mechanism for secure persistent memory systems and created effective testing schemes to validate its efficacy.
- Undertake work: code writing, framework design, experimental design

Autonomous Operation and Maintenance Intelligent Agent System for Military Airports May 2025

- Design a multi-agent architecture, construct real operational data of the airport, and utilize a fine-tuned Large Language Model (LLM). In the event of an emergency at the military airport, the architecture will immediately and automatically perform maintenance and quickly generate scheduling plans for various departments.
- Undertake work: code writing, overall design, experimental design

Automatically Bid Document Construction Agent Aug 2024

- Cooperating with Shanghai Construction Economic Group, using Agent and LLM technology, we realized the

function of automatically writing bids. We found that the format and chapters of bids are mostly fixed, and the content is also formulaic. We thought of using a bid template as RAG and designing special prompt words for LLM to learn and then generate usable bids according to user needs after inputting relevant data, reducing the workload of company writers and improving work efficiency

- Undertake work: code writing, overall design, experimental design

Agent for Multi-Source Fusion Intelligence Collection and Threat Correlation Analysis Jan 2025

- Collaborated with the Shanghai Network and Information Security Evaluation Engineering Technology Research Center to develop an LLM-powered system integrating RAG and intelligent agents. We try to complete this work by knowledge graph as RAG and multi-Agent. The system analyzes website content and search results to identify trending news and public opinions. Key features include multi-source data parsing and an LLM-based algorithm for topic summarization and sentiment analysis.
- Undertake work: code writing

Domestic Open-Source Medical Image Processing Platform Based on LLM Aug 2023

- During the use of medical image operation platforms such as imagej, we found that LLM technology can be added to the medical image processing platform, and open-source medical image processing platforms in China are not common. Therefore, we tried to develop a domestic open-source medical image processing platform based on LLM. In terms of noise reduction, three-dimensionalization, lesion detection, and analysis of medical images, we used MultiModal Machine Learning LLM llava to achieve it, and set up wikisearchfunction to assist LLM in judgment. The effect is good in actual use, and we are also optimizing and developing more functions in the future
- Undertake work: code writing, overall design, experimental design, idea proposal

EXTRACURRICULAR ACTIVITIES

- Has served as a reviewer for CCF top conferences such as AAAI, emnlp, and WWW.
- Established ERQI studio at school and served as the chairperson. The studio focuses on AI and LLM research, with over 50 staff members and multiple achievements, gain plenty of awards in various competition
- Received Awards for outstanding students
- Serve as the monitor in the class
- Member of UESTC AI community

SKILLS

- Skilled in using Python, C, and Java development languages and understand multiple LLMs
- Good at prompt engineering
- Proficient in using various AI tools
- Good at generating ideas and implementing them
- Strong learning ability, able to quickly learn new things
- Independent, efficient, and has a strong sense of time in research process.