JINGSONG SUN

Phone: 18395803181 — jingsongsun@stu.xjtu.edu.cn — WeChat: sjs2294603251

EDUCATION

Bachelor's Degree in Artificial Intelligence
Sep. 2023 – Present
Xi'an Jiaotong University (XJTU), Xi'an, China
School of Artificial Intelligence
GPA: 91.64 (3.96), Ranking: 2/72. Secured a stable recommendation for postgraduate study through the Young Gifted Program.

Young Gifted Program
Sep. 2022 – Jul. 2023
Xi'an Jiaotong University (XJTU), Xi'an, China
GPA: 3.81, Ranking: 15/187

Visiting Student
Sep. 2025 – Dec. 2025
University of California, Berkeley, CA, USA
GPA: 3.9. Selected Coursework: Agentic AI (CS 194, A+), Natural Language Processing (CS 183, A), Theory of Statistics (STAT 210, A-).

RESEARCH EXPERIENCES

Tool Use Agent Research Sep. 2025 – Mar. 2026
Advisor: Prof. Joseph Gonzalez, Department of EECS, University of California, Berkeley.

- Researched tool use capabilities of LLM-based agents, with a focus on audio agent benchmarking and evaluation.
- Designed and developed a tool use benchmark for audio agents, evaluating LLMs' ability to invoke and orchestrate audio-processing tools in multi-step reasoning tasks.
- Maintained and contributed to **BFCL v4** (Berkeley Function Calling Leaderboard), a widely adopted benchmark for evaluating LLM function calling and tool use performance.

Training Dynamics of Loop Transformers on Random Graphs Apr. 2025 – Feb. 2026
Advisors: Prof. Kaifeng Lyu, Institute for Interdisciplinary Information Sciences, Tsinghua University & Prof. Jason D. Lee, Electrical and Computer Engineering and Computer Science, Princeton University.

- Studied the training dynamics of loop Transformers on graph connectivity tasks.
- Demonstrated theoretically that a single-layer loop Transformer can learn graph reachability tasks through gradient descent, with provable convergence guarantees.

China University Robot Competition Championship Sep. 2022 – Jul. 2024
Leader of Vision Group, Xi'an Jiaotong University RC Team. Tech Stack: Linux, C++, Python.

- Led the Vision Group of XJTU's RC Team to win the **National First Prize** in the China University Robot Competition.
- Debugged and developed ROS-based SLAM programs for real-time mapping, navigation, and obstacle avoidance for the quadruped robot.
- Designed and deployed vision programs for robots in the Robocon University Championship, including motion trajectory prediction and on-field decision-making.
- Completed target detection using traditional vision and deep learning methods; implemented target tracking with YOLO, NMS, and other algorithms.

Exploring the Robustness of In-Context Learning with Noisy Labels Jan. 2024 – May 2024
Second Author. ICLR 2024 Workshop Accepted.

- Explored the robustness of Transformer models' In-Context Learning (ICL) capabilities when faced with noisy labels.
- Demonstrated that Transformers exhibit significant resilience against various types of noise in demonstration labels, and that introducing noise into the training set as data augmentation can further enhance this robustness.
- Proposed the idea of studying the impact of input dimensions on Transformer performance in ICL; independently conducted the experiments and wrote the corresponding section of the paper.

Parallel Spiking Unit for SNN Long Sequential Tasks Sep. 2022 – Sep. 2023
Advisor: Prof. Guoqi Li, University of Chinese Academy of Sciences.

- Developed a novel framework for spiking neural networks (SNNs) that addresses long sequential tasks efficiently.
- Contributed to the mathematical derivations in the SNN-related paper, enhancing skills in coding and scientific writing.
- Built foundational knowledge in machine learning and deep learning during the initial phase.

PUBLICATIONS

Reviewed Articles

Exploring the Robustness of In-Context Learning with Noisy Labels. *ICLR 2024 Workshop*. **Second Author**.

HONORS & AWARDS

National Scholarship Candidate & HIWIN Elite Student Scholarship Nov. 2024
1st Prize, China University Robot Competition Jul. 2023 & Jul. 2024
ICLR 2024 Workshop – Second Author of Accepted Paper May 2024
Young Gifted Program Scholarship, Rank: 15/187 2022 – 2023
3rd Prize, National Competition of the Blue Bridge Cup Apr. 2023