Jiajun Liu

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Basic Infomation

- **Education:** *Bachelor's degree* (2023 - 2027), **Gaoling School of Artificial Intelligence, Renmin University of China**
- **Academic Performance: GPA: 3.87/4.00 (Rank 3 / 60)**, ranking 1-st in the first and fourth semester
- **Research Interest: Spatial Intelligence, RL, Gen AI**, aiming to empower **embodied agents** with **world models**
- **Language Proficiency: Mandarin (Native), English (Fluent speaker, CET-6 Test Score: 604; Oral: Excellent)**
- **Professional Skills: Linux development**, **Python, C/C++**, **PyTorch**

Research Experience

Research Intern, GSAI-ML Group, Renmin University, China Jan 2025 - Aug 2025
- **Advisor**: Chongxuan Li
- **Topic**: 3D world models for explorable scene generation from a single image or text prompt, with prototype implementations combining 3DGS and diffusion models, contributing to an upcoming submission for ICLR 2026.

Research Intern, MLL-Lab, Northwestern University, USA Jun 2025 - Present
- **Mentor**: Manling Li
- **Topic**: Reasoning Models and Spatial VLM. Developing RL-based agents with tool-use abilities to generate novel-view images, and evaluated how these views improve performance on spatial intelligence tasks, in collaboration with Microsoft.

Publication List

1. Wenqi Zhang*, Mengna Wang*, Gangao Liu, Huixin Xu, Yiwei Jiang, Yongliang Shen, Guiyang Hou, Zhe Zheng, Hang Zhang, Xin Li, **Jiajun Liu**, Weiming Lu, Peng Li, Yueting Zhuang. *Embodied Reasoner: Synergizing Visual Search, Reasoning, and Action for Embodied Interactive Tasks*, Preprint.

Project Experience

- **Embodied Reasoner (With OSPP's funding, 150+ Github Stars)** *Main contributor*
  - Embodied-Reasoner (ER.) is a multimodal model designed for deep reasoning & long-horizon interaction. In OSPP, similar to GSoC, AGIROS Community selected me as the contributor in charge of ER. from all the applicants. I've committed to testing ER. on Alfred. And I'm contributing to resolving two key bottlenecks — ambiguity in identical object instances & imprecise targeting of large objects, aiming to further improve spatial accuracy and interaction robustness.
- **RAGEN & VAGEN: Training Agents by Reinforcing Reasoning (With 2.2k+ Github Stars)** *Contributor*
  - This twin of projects empower agents with RL to operate effectively in interactive and stochastic environments by handling multi-turn interactions and environmental uncertainty. I contributed to developing more environments and mask functions to compute the loss only for the parts generated by the model, which actually made training more stable.

Selected Awards and ScholarShip

- **Silver Medal, International Collegiate Programming Contest (ICPC) East-Asia Continent Final** Dec 2024
  Awarded by ICPC Foundation
- **Gold Medal, "Xiaomi Cup" China Collegiate Programming Contest (CCPC) Invitational Contest** Apr 2025
  Awarded by CCPC Committee and Xiaomi
- **Silver Medal, 2024 CCF Collegiate Computer Systems & Programming Contest (CCSP)** Oct 2024
  Awarded by China Computer Federation (CCF)
- **Top 2.6% out of 22k+ Globally, 2024 Meta Hacker Cup Human track** Oct 2024
  Awarded by Meta
- **2025 "Linghang" Intellectual Excellence Dean's Scholarship** Dec 2024
  Awarded by ByteDance and Gaoling School of Artificial Intelligence
- **National Second Prize, Chinese Physics Olympiad for High School Students (CPhO)** Oct 2021
  Awarded by Chinese Physics Olympiad Committee

Services and Presentations

- **Video: "My Experience Using AI+ Tools to Create Videos"** Oct 2024
  Invited by China Computer Federation (CCF) for 2024 *China National Computer Conference (CNCC) Super Forum*
- **Talk: "Algorithm and Artificial Intelligence"** Mar 2025
  Invited by Student Union & Gaoling School of Artificial Intelligence | Invited by Information School