Zaijing Li

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Research Interests

- **Open-World Agent**: Research on methods for building agents in a open world based on multimodal large language model, involving techniques such as Retrieval-Augmented Generation, In-context Learning, Reinforcement Learning.

Educations

Harbin Institute of Technology (Shenzhen)   **Shenzhen, China**
Ph.D. advised by Prof. Liqiang Nie   *Sep 2023 – Present*
Computer Science and Technology

Central South University   **Changsha, China**
M.Sc. advised by Prof. Ming Zhao   *Sep 2020 – Jun 2023*
Computer Science and Technology

Central South University   **Changsha, China**
B.Sc. advised by Prof. Huihai Wang   *Sep 2016 – Jun 2020*
Electronic Information Science and Technology

Projects & Internships

Open-World Agent   *Ongoing*
- **Optimus-1** [NeurIPS 2024]
- **Optimus-2** [CVPR 2025]
- **Optimus-3** [Under Review]
- **OptimusVLA** [CVPR 2026]

Research Intern in Huawei Noah's Ark Lab   *Nov 2024 – Apr 2025*
- **Mirage-1** [Under Review]

Research Intern in Alibaba DAMO Academy   *Aug 2022 – Mar 2023*
- **UniSA** [ACM Multimedia 2023]

Emotion Recognition in Conversation   *Sep 2020 – Jul 2022*
- **EmoCaps** [ACL 2022 Findings]

Selected Publications

- **Zaijing Li**, Bing Hu, Rui Shao, Gongwei Chen, Dongmei Jiang, Pengwei Xie, Jianye Hao, Liqiang Nie. Global Prior Meets Local Consistency: Dual-Memory Augmented Vision-Language-Action Model for Efficient Robotic Manipulation. *CVPR 2026* (CCF-A).

- **Zaijing Li**, Yuquan Xie, Rui Shao, Gongwei Chen, Dongmei Jiang, Liqiang Nie. Optimus-2: Multi-modal Minecraft Agent with Goal-Observation-Action Policy. *CVPR 2025* (CCF-A).

- **Zaijing Li**, Yuquan Xie, Rui Shao, Gongwei Chen, Dongmei Jiang, Liqiang Nie. Optimus-1: Hybrid Multimodal Memory Empowered Agents Excel in Long-Horizon Tasks. *NeurIPS 2024* (CCF-A).

- **Zaijing Li**, Meng Liu, Fengxiao Tang, Ming Zhao. UniSA: Unified Generative Framework for

Sentiment Analysis. *ACM MM 2023* (CCF-A).

- **Zaijing Li**, Fengxiao Tang, Ming Zhao, and Yusen Zhu. EmoCaps: Emotion Capsule based Model for Conversational Emotion Recognition. *Findings of ACL 2022* (CCF-A).

- **Zaijing Li**, Yuquan Xie, Rui Shao, Gongwei Chen, Dongmei Jiang, Liqiang Nie. Optimus-3: Towards Generalist Multimodal Minecraft Agents with Mixture-of-Experts. *Under Review*.

- **Zaijing Li**, Rui Shao, Yuquan Xie, Gongwei Chen, Dongmei Jiang, Liqiang Nie. Optimus-1++: Hybrid Multimodal Memory Empowered Open-World Agent. *Under Review*.

- **Zaijing Li**, Rui Shao, Gongwei Chen, Yuquan Xie, et al. Enhancing Emotional Generation Capability of Large Language Models via Emotional Chain-of-Thought. *Under Review*.

- Yuquan Xie, **Zaijing Li**, Rui Shao, Gongwei Chen, et al. Mirage-1: Augmenting and Updating GUI Agent with Hierarchical Multimodal Skills. *Under Review*.

- Haoyu Zhang, Yuquan Xie, Yisen Feng, **Zaijing Li**, Meng Liu, Liqiang Nie. HCQA@ Ego4D EgoSchema Challenge 2024. *Technical Report*.

- Yisen Feng, Haoyu Zhang, Yuquan Xie, **Zaijing Li**, Meng Liu, Liqiang Nie. ObjectNLQ@ Ego4D Episodic Memory Challenge 2024. *Technical Report*.

Awards

- PengCheng Laboratory Scholarship, 2025

- **Outstanding Master's Thesis Award** of Hunan Province, 2025

- **CVPR 2025**, Outstanding Reviewer

- **CVPR 2024** - EGO4D Challenge Ego Schema Track, **1st Place Award**

- **CVPR 2024** - EGO4D Challenge Natural Language Queries Track, **2nd Place Award**

- **CVPR 2024** - EGO4D Challenge Goal Steps Track, **3rd Place Award**

- **Outstanding Master's Thesis Award** of Hunan Computer Federation, 2024

- **National Graduate Scholarship**, 2022

- National College Student Optoelectronic Design Competition, **Third Prize**, 2018

- Huawei Cup National College Student Intelligent Design Competition, **First Prize**, 2018

Academic Services

- **Conference Reviewer**: CVPR, ICCV, ECCV, NeurIPS, ICML, ICLR, ACM MM, ACL, AAAI.

- **Journal Reviewer**: IEEE TKDE.