SIPENG ZHENG

I am a research scientist at Beijing Academy of Artificial Intelligence (BAAI). I received my PhD and bachelor degrees from Renmin University of China in 2023 and 2018 respectively under the supervision of Prof. Qin Jin. My research interest lies in human behavior understanding, vision-and-language learning, and embodied artificial intelligence.

EDUCATION

Renmin University of China2018.09 - 2023.06Ph.D in Computer ScienceSupervisor: Qin JinRenmin University of China2014.09 - 2018.06B.S in Computer ScienceSupervisor: Qin Jin

WORK EXPERIENCE

Beijing Academy of Artificial Intelligence

Beijing, China

Research scientist

2023.07 - Present

• Large-scale multi-modal pre-training to enable agents solving open-ended tasks in Minecraft.

*Research intern**

2021.09 - 2022.02

• Multi-lingual language-vision-audio pre-training.

Microsoft Research Asia

Beijing, China

Research intern

2022.04 - 2022.10

• Temporal sentence grounding for long-term videos.

PUBLICATION

- 1. **Sipeng Zheng**, Jiazheng Liu, Yicheng Feng, and Zongqing Lu. Steve-eye: Equipped llm-based embodied agents with visual perception in open worlds. Under Review 2023
- 2. Yicheng Feng, **Sipeng Zheng**, Yuxuan Wang, Jiazheng Liu, and Zongqing Lu. Llama rider: Spurring large language models to explore the open worlds. Under Review 2023
- 3. Qi Zhang, **Sipeng Zheng**, and Qin Jin. No-frills temporal video grounding: Multi-scale neighboring attention and zoom-in boundary detection. Under Review 2023
- 4. **Sipeng Zheng**, Boshen Xu, and Qin Jin. Open-category human-object interaction pre-training via language modeling framework. In *CVPR*, 2023
- 5. Boshen Xu, **Sipeng Zheng**, and Qin Jin. Pov: Prompt-oriented view-agnostic learning for egocentric hand-object interaction in the multi-view world. In *ACM MM*, 2023
- 6. Ludan Ruan, Anwen Hu, Yuqing Song, Liang Zhang, **Sipeng Zheng**, and Qin Jin. Accommodating audio modality in clip for multimodal processing. In AAAI, 2023
- 7. **Sipeng Zheng**, Shizhe Chen, and Qin Jin. Few-shot action recognition with hierarchical matching and contrastive learning. In *ECCV*, 2022
- 8. **Sipeng Zheng**, Shizhe Chen, and Qin Jin. Vrdformer: End-to-end video visual relation detection with transformers. In *CVPR*, 2022 (Oral)
- 9. **Sipeng Zheng**, Qi Zhang, and Qin Jin. Exploring anchor-based detection for ego4d natural language query. In $CVPR\ Ego4D\ workshop$, 2022

- 10. Bei Liu, **Sipeng Zheng**, Jianlong Fu, and Wen-Huang Cheng. Anchor-based detection for natural language localization in ego-centric videos. In *IEEC*, 2022
- 11. **Sipeng Zheng**, Shizhe Chen, and Qin Jin. Skeleton-based interactive graph network for human object interaction detection. In *ICME*, 2020
- 12. **Sipeng Zheng**, Shizhe Chen, and Qin Jin. Visual relation detection with multi-level attention. In *ACM MM*, 2019
- 13. **Sipeng Zheng**, Xiangyu Chen, Shizhe Chen, and Qin Jin. Relation understanding in videos. In *ACM MM*, 2019

AWARDS

\star National Scholarship for Ph.D Students.	2022
\star Ranked 3th in Facebook CVPR 2022 Ego 4D Natural Language Query Challenge.	2022
\star Ranked 3th, NIST TRECVID 2021 Ad-hoc Video Search (AVS) Challenge.	2021
\star Ranked 4th in CVPR 2021 HOMAGE Scene-graph Generation Challenge.	2021
\star Ranked 2nd in ACM MM 2020 Video Relationship Understanding Grand Challenge.	2020
\star Ranked 2nd in ACM MM 2019 Video Relationship Understanding Grand Challenge.	2019
\star Best Method Prize in ACM MM 2019 Grand Challenge	2019
\star First Class Scholarship for Ph.D Students.	2018-2021
* First Prize in National University Mathematical Modeling Competition.	2015

PROFESSIONAL ACTIVITIES

- * Conference Reviewer for CVPR, ICCV, ECCV, NeurIPS, AAAI, ACM MM, ICME.
- * Journal Reviewer for IJCV, TCSVT, TMM.