Ziming Wei

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Research Interests

Embodied AI, Multi-modal Understanding and Generation, AI Agents.

Education

Sun Yat-sen University, BS in Intelligent Science and Technology　　　　Sept 2020 – June 2024
- GPA: 4.03/5.0 (Ranking: 3/226)

Sun Yat-sen University, Master in Control Science and Engineering　　　　Sept 2024 – June 2027
- **Advisor:** Prof. Xiaodan Liang

Publications

(* denotes Co-first Authors, † denotes Corresponding Author.)

[1] Unseen from Seen: Rewriting Observation-Instruction Using Foundation Models for Augmenting Vision-Language Navigation

(*Under Review, Arxiv Preprint*)

Ziming Wei*, Bingqian Lin*, Yunshuang Nie, Jiaqi Chen, Shikui Ma, Hang Xu, Xiaodan Liang†

[2] MineAnyBuild: Benchmarking Spatial Planning for Open-world AI Agents

(*Under Review, Arxiv Preprint*)

Ziming Wei*, Bingqian Lin*, Zijian Jiao*, Yunshuang Nie, Liang Ma, Yuecheng Liu, Yuzheng Zhuang, Xiaodan Liang†

[3] NavCoT: Boosting LLM-Based Vision-and-Language Navigation via Learning Disentangled Reasoning

(*IEEE TPAMI 2025*)

Bingqian Lin*, Yunshuang Nie*, **Ziming Wei**, Jiaqi Chen, Shikui Ma, Jianhua Han, Hang Xu, Xiaojun Chang, Xiaodan Liang†

[4] Correctable Landmark Discovery via Large Models for Vision-Language Navigation

(*IEEE TPAMI 2024*)

Bingqian Lin*, Yunshuang Nie*, **Ziming Wei**, Yi Zhu, Hang Xu, Shikui Ma, Jianzhuang Liu, Xiaodan Liang†

[5] EvolveNav: Self-Improving Embodied Reasoning for LLM-Based Vision-Language Navigation

(*Under Review, Arxiv Preprint*)

Bingqian Lin*, Yunshuang Nie*, Khun Loun Zai, **Ziming Wei**, Mingfei Han, Rongtao Xu, Minzhe Niu, Jianhua Han, Liang Lin, Cewu Lu, Xiaodan Liang†

[6] PhyBlock: A Progressive Benchmark for Physical Understanding and Planning via 3D Block Assembly

(*Under Review, Arxiv Preprint*)

Liang Ma, Jiajun Wen, Min Lin, Rongtao Xu, Xiwen Liang, Bingqian Lin, Jun Ma, Yongxin Wang, **Ziming Wei**, Haokun Lin, Mingfei Han, Meng Cao, Bokui Chen, Ivan Laptev, Xiaodan Liang†

Experience

Research Intern, Huawei Noah's Ark Lab, Shenzhen, Guangdong, China　　　　Apr 2025 – Present
Mentor: Yuzheng Zhuang, Yuecheng Liu

Data Engineering Intern, Tencent SSV, Shenzhen, Guangdong, China　　　　July 2023 – Nov 2023
Mentor: Hangyu Li