

# Ziming Wei

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## Research Interests

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

## Education

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**Sun Yat-sen University**, BS in Intelligent Science and Technology Sept 2020 – June 2024

• GPA: 4.03/5.0 (Ranking: 3/226, Top 1%)

**Sun Yat-sen University**, Master in Control Science and Engineering Sept 2024 – June 2027

• Advisor: Prof. Xiaodan Liang; **Weighted Average Score**: 92.58/100.0

## Publications

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(\* 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

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**Research Intern, Huawei Noah's Ark Lab**, Shenzhen, Guangdong, China

Apr 2025 – Present

Mentor: Yuecheng Liu, Yuzheng Zhuang

**Data Engineering Intern, Tencent SSV**, Shenzhen, Guangdong, China

July 2023 – Nov 2023

Mentor: Hangyu Li

## Awards

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- First Class Award Scholarship of the Graduate School, Sun Yat-sen University, in 2024
- Excellent Bachelor Dissertation Award of Sun Yat-sen University, in 2024 (**Top 1 Recommended**)
- Third Class Award Scholarship of Sun Yat-sen University Excellent Student, Sun Yat-sen University, China, in 2020-2021, 2021-2022 and 2022-2023