Jiazhao Zhang

EMAIL: zhngjizh@gmail.com, jiazhao.zhang@stu.pku.edu.cn
WEBSITE: https://jzhzhang.github.io

Education

Peking University — Beijing, China
Ph.D. Student Computer Science — 2022 - present
- Advisor: He Wang

National University of Defense Technology — Changsha, Hunan, China
M.E. Computer Science — 2019 - 2022
- Advisor: Kai Xu (Kevin)

Shandong University — Jinan, Shandong, China
B.E. Software Engineering — 2015 - 2019

Research Experience

Galbot — Beijing, China
Research Intern — 2023 - present

Beijing Academy of Artificial Intelligence (BAAI) — Beijing, China
Research Intern — 2022 - 2023

Research Interest

My research aims to develop intelligent and practical navigation agent capable of understanding and interacting with the physical world to enhance human daily life. Currently, my work focuses on advancing robotic navigation through the Vision-Language-Action model. My research spans multiple fields, including embodied AI and 3D vision.

Selected Publications

[1] **Jiazhao Zhang**, Kunyu Wang, Shaoan Wang ,Minghan Li, Haoran Liu, Songlin Wei, Zhongyuan Wang, Zhizheng Zhang, He Wang, "Uni-NaVid: A Video-based Vision-Language-Action Model for Unifying Embodied Navigation Tasks ", **RSS 2025**.

[2] **Jiazhao Zhang**∗, Kunyu Wang∗, Rongtao Xu∗, Gengze Zhou, Yicong Hong, Xiaomeng Fang, Qi Wu, Zhizheng Zhang, He Wang, "NaVid: Video-based VLM Plans the Next Step for Vision and Language Navigation ", **RSS 2024** .

[3] **Jiazhao Zhang**∗, Nandiraju Gireesh∗, Jilong Wang, Xiaomeng Fang, Chaoyi Xu, Weiguang Chen, Liu Dai, He Wang, "GAMMA: Graspability-Aware Mobile MAnipulation Policy Learning based on Online Grasping Pose Fusion", **ICRA 2024**.

[4] **Jiazhao Zhang**∗, Liu Dai∗, Fan Meng, Qingnan Fan, Xuelin Chen, Kai Xu, He Wang, "3D-Aware Object Goal Navigation via Simultaneous Exploration and Identification", **CVPR 2023**.

[5] **Jiazhao Zhang**, Yijie Tang, He Wang, Kai Xu, "ASRO-DIO: Active Subspace Random Optimization based Depth Inertial Odometry", **IEEE Transactions on Robotics (T-RO)**.

[6] **Jiazhao Zhang**, Chenyang Zhu, Lintao Zheng, Kai Xu, "ROSEFusion: Random Optimization for Online Dense Reconstruction under Fast Camera Motion", **ACM Transactions on Graphics (SIGGRAPH 2021), 40(4)**.

[7] **Jiazhao Zhang**∗, Chenyang Zhu∗, Lintao Zheng, Kai Xu, "Fusion-Aware Point Convolution for Online Semantic 3D Scene Segmentation", **CVPR 2020**.

All Publications

[1] **Jiazhao Zhang**, Kunyu Wang ,Shaoan Wang ,Minghan Li ,Haoran Liu ,Songlin Wei, Zhongyuan Wang ,Zhizheng Zhang ,He Wang "Uni-NaVid: A Video-based Vision-Language-Action Model for Unifying Embodied Navigation Tasks ", **RSS 2025** .

[2] Yijie Tang*, **Jiazhao Zhang***, Yuqing Lan, Yulan Guo, Dezun Dong, Chenyang Zhu, Kai Xu "OnlineAnySeg: Online Zero-Shot 3D Segmentation by Visual Foundation Model Guided 2D Mask Merging ", **CVPR 2025** .

[3] Wenbo Cui, Chengyang Zhao , Songlin Wei , **Jiazhao Zhang**, Haoran Geng,Yaran Chen, He Wang† "GAPartManip: A Large-scale Part-centric Dataset for Material-Agnostic Articulated Object Manipulation ", **ICRA 2025** .

[4] Haoran Liu, Weikang Wan, Xiqian Yu, Minghan Li, **Jiazhao Zhang**, Bo Zhao, Zhibo Chen, Zhongyuan Wang, Zhizheng Zhang, He Wang"NaVid-4D: Unleashing Spatial Intelligence in Egocentric RGB-D Videos for Vision-and-Language Navigation", **ICRA 2025** .

[5] **Jiazhao Zhang**∗, Kunyu Wang∗, Rongtao Xu∗, Gengze Zhou, Yicong Hong, Xiaomeng Fang, Qi Wu, Zhizheng Zhang, He Wang "NaVid: Video-based VLM Plans the Next Step for Vision and Language Navigation ", **RSS 2024** .

[6] **Jiazhao Zhang**∗, Nandiraju Gireesh∗, Jilong Wang, Xiaomeng Fang, Chaoyi Xu, Weiguang Chen, Liu Dai, He Wang "GAMMA: Graspability-Aware Mobile MAnipulation Policy Learning based on Online Grasping Pose Fusion", **ICRA 2024**.

[7] Mi Yan, **Jiazhao Zhang**, Yan Zhu, He Wang "MaskClustering: View Consensus based Mask Graph Clustering for Open-Vocabulary 3D Instance Segmentation", **CVPR 2024** .

[8] Yihan Cao, **Jiazhao Zhang**, Zhinan Yu, Kai Xu "Neural observation field guided hybrid optimization of camera placement", **RA-L 2024** .

[9] Yufei Ding, Haoran Geng, Chaoyi Xu, Xiaomeng Fang, **Jiazhao Zhang**, Songlin Wei, Qiyu Dai, Zhizheng Zhang, He Wang "Open6DOR: Benchmarking Open-instruction 6-DoF Object Rearrangement and A VLM-based Approach", **IROS 2024** .

[10] Yijie Tang∗, **Jiazhao Zhang**∗, Zhinan Yu, He Wang, Kai Xu, "MIPS-Fusion: Multi Implicit Submaps for Scalable and Robust Online Neural RGB-D Reconstruction", **ACM Transactions on Graphics (SIGGRAPH Asia 2023)**, 42(6) .

[11] **Jiazhao Zhang**∗, Liu Dai∗, Fanpeng Meng, Qingnan Fan, Xuelin Chen, Kai Xu, He Wang, "3D-Aware Object Goal Navigation via Simultaneous Exploration and Identification", **CVPR 2023**.

[12] Qiyu Dai*, Yan Zhu*, Yiran Geng, Ciyu Ruan, **Jiazhao Zhang**, He Wang, "GraspNeRF: Multiview-based 6-DoF Grasp Detection for Transparent and Specular Objects Using Generalizable NeRF", **ICRA 2023**.

[13] Jiayi Chen*, Mi Yan*, **Jiazhao Zhang**, Yinzhen Xu, Xiaolong Li, Yijiang Weng, Li Yi, Shuran Song, He Wang†, "Tracking and Reconstructing Hand Object Interactions from Point Cloud Sequences in the Wild", **AAAI 2023**.

[14] **Jiazhao Zhang**, Yijie Tang, He Wang, Kai Xu, "ASRO-DIO: Active Subspace Random Optimization based Depth Inertial Odometry", **IEEE Transactions on Robotics (T-RO)**

[15] **Jiazhao Zhang**, Chenyang Zhu, Lintao Zheng, Kai Xu, "ROSEFusion: Random Optimization for Online Dense Reconstruction under Fast Camera Motion", **ACM Transactions on Graphics (SIGGRAPH 2021), 40(4)**.

[16] **Jiazhao Zhang**∗, Chenyang Zhu∗, Lintao Zheng, Kai Xu,Fusion-Aware Point Convolution for Online Semantic 3D Scene Segmentation", **CVPR 2020**.

[17] Lintao Zheng, Chenyang Zhu, **Jiazhao Zhang**, Hang Zhao, Hui Huang, Matthias Niessner, Kai Xu, FActive Scene Understanding via Online Semantic Reconstruction", **Computer Graphics Forum (Pacific Graphics 2019)**.

Academic Services

Journal Reviewer: TPAMI, TIP, RA-L
Conference Reviewer: RSS, ICCV, NeurIPS, CVPR, ICLR, CoRL, ICRA, IROS