

# ZHIXUAN, LIANG

Personal Page: <https://liang-zx.github.io> GitHub: <https://github.com/Liang-ZX>

E-mail: [liangzx@connect.hku.hk](mailto:liangzx@connect.hku.hk) Telephone: (+86)18959151077

## EDUCATION

---

**Ph.D. in Computer Science** University of Hong Kong Sep. 2022-Present

- Adviser: [Prof. Ping Luo](#) (MMLAB) and [Prof. Wenping Wang](#) (IEEE Fellow and ACM Fellow)
- Hong Kong PhD Fellowship Scheme (HKPFS)

**B.Eng. in Automation** Zhejiang University Sep. 2017-Jul. 2021

- GPA: 90.62/100 (3.98/4.0) | Ranking: 1/100 (Top 1%)
- Honors Minor: Advanced Class of Engineering Education, **Chu Kochen Honors College**
- National Scholarship (Top 0.2%)

## EXPERIENCES

---

**Visiting Scholar** University of California, Berkeley Berkeley, CA Jun. 2024-Jan. 2025

Topic: Diffusion Models for Planning Advisor: [Prof. Masayoshi Tomizuka](#) (NAE Member)

- I conducted researches on diffusion model-based task execution to enhance the generalizability and adaptability of planning algorithms, with two papers in ICML 2023 (one Oral), one in CVPR 2024 and one in CVPR 2025.

**Research Intern** SenseTime Research Shanghai Jun. 2021-Jul. 2022

Topic: Active Learning on Deep Object Detection Mentor: [Dr. Xingyu Zeng](#) and [Dr. Rui Zhao](#)

- I proposed a Mean Average Precision guided reinforced active learning method for object detection.

**Research Intern** University of Washington Seattle, WA Jun. 2020-Oct. 2020

Topic: Multi-timepoint Registration of Knee MRI Advisor: [Prof. Chun Yuan](#)

- I designed an automatic and robust algorithm for multi-timepoint registration of popliteal artery to assist in summarizing the pattern of popliteal atherosclerotic plaque with one paper in ISMRM 2021.

## PUBLICATIONS

---

- DexHandDiff: Interaction-aware Diffusion Planning for Adaptive Dexterous Manipulation.  
**Zhixuan Liang**, Yao Mu, Yixiao Wang, Tianxing Chen, Wenqi Shao, Wei Zhan, Masayoshi Tomizuka, Ping Luo, Mingyu Ding.  
**CVPR 2025** [\[paper\]](#) [\[website\]](#)
- SkillDiffuser: Interpretable Hierarchical Planning via Skill Abstractions in Diffusion-Based Execution.  
**Zhixuan Liang**, Yao Mu, Hengbo Ma, Masayoshi Tomizuka, Mingyu Ding, Ping Luo.  
**CVPR 2024** [\[paper\]](#) [\[website\]](#)
- AdaptDiffuser: Diffusion Models as Adaptive Self-evolving Planners.  
**Zhixuan Liang**, Yao Mu, Mingyu Ding, Fei Ni, Masayoshi Tomizuka, Ping Luo.  
**ICML 2023 (Oral, Top 2.4%)** [\[paper\]](#) [\[website\]](#)
- G3Flow: Generative 3D Semantic Flow for Pose-aware and Generalizable Object Manipulation.  
Tianxing Chen\*, Yao Mu\*, **Zhixuan Liang\***, Zhanxin Chen, Shijia Peng, Qiangyu Chen, Mingkun Xu, Ruizhen Hu, Hongyuan Zhang, Ping Luo.  
**CVPR 2025** [\[paper\]](#) [\[website\]](#)
- MetaDiffuser: Diffusion Model as Conditional Planner for Offline Meta-RL.  
Fei Ni, Jianye Hao, Yao Mu, Yifu Yuan, Yan Zheng, Bin Wang, **Zhixuan Liang**.  
**ICML 2023** [\[paper\]](#) [\[website\]](#)

6. MeanAP-Guided Reinforced Active Learning for Object Detection.  
**Zhixuan Liang**, Xingyu Zeng, Rui Zhao and Ping Luo.  
*Under Review*, 2023. (Submitted to ICME 2025) [\[paper\]](#)
7. Longitudinal Registration of Knee MRI Based on Femoral and Tibial Alignment.  
**Zhixuan Liang**, Yin Guo and Chun Yuan.  
**ISMRM 2021** [\[paper\]](#) [\[code\]](#)
8. Plot2Code: A Comprehensive Benchmark for Evaluating Multi-modal Large Language Models in Code Generation from Scientific Plots.  
Chengyue Wu, **Zhixuan Liang**, Yixiao Ge, Qiushan Guo, Zeyu Lu, Jiahao Wang, Ying Shan, Ping Luo.  
**Findings of NAACL 2025** [\[paper\]](#) [\[dataset\]](#)
9. RoboTwin: Dual-Arm Robot Benchmark with Generative Digital Twins.  
Yao Mu, Tianxing Chen, Zanxin Chen, Shijia Peng, Zhiqian Lan, Zeyu Gao, **Zhixuan Liang**, Qiaojun Yu, Yude Zou, Mingkun Xu, Lunkai Lin, Zhiqiang Xie, Mingyu Ding, Ping Luo.  
**CVPR 2025** [\[website\]](#)
10. RoboCodeX: Multimodal Code Generation for Robotic Behavior Synthesis.  
Yao Mu, Junting Chen, Qinglong Zhang, Shoufa Chen, Qiaojun Yu, Chongjian Ge, Runjian Chen, **Zhixuan Liang**, Mengkang Hu, Chaofan Tao, Peize Sun, Haibao Yu, Chao Yang, Wenqi Shao, Wenhai Wang, Jifeng Dai, Yu Qiao, Mingyu Ding, Ping Luo.  
**ICML 2024** [\[paper\]](#) [\[website\]](#)
11. RoboScript: Code Generation for Free-Form Manipulation Tasks across Real and Simulation.  
Junting Chen, Yao Mu, Qiaojun Yu, Tianming Wei, Silang Wu, Zhecheng Yuan, **Zhixuan Liang**, Chao Yang, Kaipeng Zhang, Wenqi Shao, Yu Qiao, Huazhe Xu, Mingyu Ding, Ping Luo.  
*Technical Report*, 2024. [\[paper\]](#)

## CAREER OBJECTIVE

---

Seek for a Research Intern position on robotics especially on Vision-Language-Action Model, Diffusion Policy, Generative Model for Imitation Learning and Embodied AI.

## AWARDS & HONORS

---

### Scholarship

- **Hong Kong PhD Fellowship Scheme (HKPFS)** (*Top 300 PhD students in HK per year*) 2022
- **HKU Presidential PhD Scholarship (HKU-PS)** 2022
- Y S and Christabel Lung Postgraduate Scholarship 2022
- **National Scholarship** (*Top 0.2% across China*) 2020
- Wang Guosong Dean's Award (*Highest Award at College of EE, Zhejiang University*) 2021
- Outstanding Graduate in Zhejiang Province 2021
- Zhejiang University Scholarship – First Prize (**Top 3%**) (*3 Times*) 2018 & 2019 & 2020

### Academic Competitions Awards

- **Finalist Award**, Mathematical Contest in Modeling (**Top 2%** in 20,954 teams) Apr. 2020
- First Prize, Mathematics Competition of Chinese College Students Nov. 2019

## SKILLS & LANGUAGE & ACTIVITIES

---

- Programming Skills: C/C++, Python, MATLAB, Risc-V, SQL
- Data Structures and Algorithms; Computer Architecture; Operating System; Robotics;
- Framework and Tools: Lingo, OpenCV, Pytorch, ROS, LaTeX, Git, Qt