

Hongjie Fang

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Education

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| Shanghai Jiao Tong University <i>Ph.D. Student</i> , Wu Wenjun Honorable Class, Computer Science and Engineering | 2022/09 – <i>present</i> Shanghai, China |
| Shanghai Jiao Tong University <i>Bachelor of Engineering</i> , major in Computer Science and Engineering, <i>Bachelor of Economics</i> , minor in Finance • GPA 4.03 / 4.3, Ranking: 2 / 149. | 2018/09 – 2022/06 Shanghai, China |

Awards

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| Shanghai Outstanding Graduates | 2022 |
| 85' Alumni and Yang Yuanqing Education Fund Scholarship | 2021 |
| Shanghai Scholarship | 2020 |
| Fuguang Scholarship | 2018 - 2022 |
| Zhiyuan Scholarship | 2018 - 2022 |
| National Olympics in Informatics (NOI) <i>Bronze Medal</i> | 2017 |
| National Olympics in Informatics in Provinces (NOIP) <i>First Prize</i> | 2015 & 2016 |

Publications

- AirExo: Low-Cost Exoskeletons for Learning Whole-Arm Manipulation in the Wild
Hongjie Fang*, Hao-Shu Fang*, Yiming Wang*, Jieji Ren, Jingjing Chen, Ruo Zhang, Weiming Wang, Cewu Lu
IEEE International Conference on Robotics and Automation (ICRA), 2024.
- TransCG: A Large-Scale Real-World Dataset for Transparent Object Depth Completion and A Grasping Baseline
Hongjie Fang, Hao-Shu Fang, Sheng Xu, Cewu Lu
IEEE Robotics and Automation Letters (RA-L), 2022; *Presented at ICRA 2023*.
- RH20T: A Comprehensive Robotic Dataset for Learning Diverse Skills in One-Shot
Hao-Shu Fang, **Hongjie Fang**, Zhenyu Tang, Jirong Liu, Chenxi Wang, Junbo Wang, Haoyi Zhu, Cewu Lu
IEEE International Conference on Robotics and Automation (ICRA), 2024
- RISE: 3D Perception Makes Real-World Robot Imitation Simple and Effective
Chenxi Wang, **Hongjie Fang**, Hao-Shu Fang, Cewu Lu
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2024.
- Towards Effective Utilization of Mixed-Quality Demonstrations in Robotic Manipulation via Segment-Level Selection and Optimization
Jingjing Chen, **Hongjie Fang**, Hao-Shu Fang, Cewu Lu
IEEE International Conference on Robotics and Automation (ICRA), 2025.
- CAGE: Causal Attention Enables Data-Efficient Generalizable Robotic Manipulation
Shangning Xia, **Hongjie Fang**, Hao-Shu Fang, Cewu Lu
IEEE International Conference on Robotics and Automation (ICRA), 2025.
- AnyGrasp: Robust and Efficient Grasp Perception in Spatial and Temporal Domains
Hao-Shu Fang, Chenxi Wang, **Hongjie Fang**, Minghao Gou, Jirong Liu, Hengxu Yan, Wenhai Liu, Yichen Xie, Cewu Lu
IEEE Transaction on Robotics (T-RO), 2023; *Presented at ICRA 2024*.
- Open X-Embodiment: Robotic Learning Datasets and RT-X Models
Open X-Embodiment Collaboration, 147 authors
IEEE International Conference on Robotics and Automation (ICRA), 2024.
Best Conference Paper Award

9. Flexible Handover with Real-Time Robust Dynamic Grasp Trajectory Generation
Gu Zhang, Hao-Shu Fang, **Hongjie Fang**, Cewu Lu
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2023.
10. Graspness Discovery in Clutters for Fast and Accurate Grasp Detection
Chenxi Wang*, Hao-Shu Fang*, Minghao Gou, **Hongjie Fang**, Jin Gao, Cewu Lu
IEEE/CVF International Conference on Computer Vision (ICCV), 2021.
11. Target-Referenced Reactive Grasping for Dynamic Objects
Jirong Liu, Ruo Zhang, Hao-Shu Fang, Minghao Gou, **Hongjie Fang**, Chenxi Wang, Sheng Xu, Hengxu Yan, Cewu Lu
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.

Preprints

1. Motion Before Action: Diffusing Object Motion as Manipulation Condition
Yue Su*, Xinyu Zhan*, **Hongjie Fang**, Yong-Lu Li, Cewu Lu, Lixin Yang
arXiv, 2024.
2. FoAR: Force-Aware Reactive Policy for Contact-Rich Robotic Manipulation
Zihao He*, **Hongjie Fang***, Jingjing Chen, Hao-Shu Fang, Cewu Lu
arXiv, 2024.

Academic Services

Reviewer for journal *RA-L*.

Reviewer for conferences including *ICRA*, *IROS*, *ICLR*, *etc.*

Teaching

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|---|-------------------------|
| Teaching Assistant, <i>Algorithm and Complexity</i> | Spring, 2022 |
| Teaching Assistant, <i>C++ Programming Language (Honor)</i> | Fall, 2020 |
| Teaching Assistant, <i>Data Structure (Honor)</i> | Spring, 2019 |
| Teaching Assistant, <i>Linear Algebra (Honor)</i> | Fall 2021 & Fall, 2022 |
| Teaching Assistant, <i>Mathematical Analysis (Honor)</i> | Fall, 2020 & Fall, 2021 |

Invited Talks

- 03/2024, Echo AI Talk, USyd, *Towards Efficient Robot Imitation Learning from Human Demonstrations* (Data).
- 11/2024, Zhixingxing Talk, *Towards Efficient Robot Imitation Learning from Human Demonstrations* (Data + Policy).