

# Hongjie Fang

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## Education

### Shanghai Jiao Tong University

Ph.D. Student, Wu Wenjun Honorable Class, Computer Science and Engineering

2022/09 – present

Shanghai, China

### Shanghai Jiao Tong University

Bachelor of Engineering, major in Computer Science and Engineering,

2018/09 – 2022/06

Bachelor of Economics, minor in Finance

Shanghai, China

- GPA 4.03 / 4.3, Ranking: 2 / 149.

## Awards

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) Bronze Medal

2017

National Olympics in Informatics in Provinces (NOIP) First Prize

2015 & 2016

## Publications

1. 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.
2. 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.
3. FoAR: Force-Aware Reactive Policy for Contact-Rich Robotic Manipulation  
Zihao He\*, **Hongjie Fang\***, Jingjing Chen, Hao-Shu Fang, Cewu Lu  
*IEEE Robotics and Automation Letters (RA-L)*, 2025.
4. 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
5. 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.
6. 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.
7. 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.
8. 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.
9. Motion Before Action: Diffusing Object Motion as Manipulation Condition  
Yue Su\*, Xinyu Zhan\*, **Hongjie Fang**, Yong-Lu Li, Cewu Lu, Lixin Yang  
*IEEE Robotics and Automation Letters (RA-L)*, 2025.

10. 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**
11. 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.
12. SIME: Enhancing Policy Self-Improvement with Modal-Level Exploration  
Yang Jin\*, Jun Lv\*, Wenye Yu, **Hongjie Fang**, Yong-Lu Li, Cewu Lu  
*IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2025.
13. 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.
14. 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

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1. AnyDexGrasp: Learning General Dexterous Grasping for Any Hands with Human-level Learning Efficiency  
Hao-Shu Fang, Hengxu Yan, Zhenyu Tang, **Hongjie Fang**, Chenxi Wang, Cewu Lu  
*arXiv*, 2025.
2. AirExo-2: Scaling up Generalizable Robotic Imitation Learning with Low-Cost Exoskeletons  
**Hongjie Fang\***, Chenxi Wang\*, Yiming Wang\*, Jingjing Chen\*, Shangning Xia, Jun Lv, Zihao He, Xiyan Yi, Yunhan Guo, Xinyu Zhan, Lixin Yang, Weiming Wang, Cewu Lu, Hao-Shu Fang  
*arXiv*, 2025.
3. Dense Policy: Bidirectional Autoregressive Learning of Actions  
Yue Su\*, Xinyu Zhan\*, **Hongjie Fang**, Han Xue, Hao-Shu Fang, Yong-Lu Li, Cewu Lu, Lixin Yang  
*arXiv*, 2025.

## Academic Services

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Reviewer for journal *RA-L*.

Reviewer for conferences including *ICRA* (2023 - 2025), *IROS* (2023 - 2025), *ICLR* (2025), *CoRL* (2025) 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

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- 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).
- 02/2025, THU Yang Gao Group, *Towards Generalizable Imitation Learning from Human Demonstrations* (Policy).