

Yongpeng Jiang

✉ jiangyp19@gmail.com

🏠 director-of-g.github.io

🔗 Director-of-G

🎓 Yongpeng Jiang

EDUCATION

Bachelor of Engineering in Automation

September 2019 - June 2023

Department of Automation, Tsinghua University, Beijing, China

GPA: 3.94/4.00, Rank: 4/160

PhD Candidate in Control Science and Engineering

August 2023 - Now

Department of Automation, Tsinghua University, Beijing, China

GPA: 4.00/4.00, Rank: 1/70 Advisor: Prof. Xiang Li

RESEARCH INTERESTS

My research aims to develop dexterous robots capable of autonomous, safe, and effective interaction with humans and the physical world. I focus on **dexterous grasping** and **in-hand manipulation**, with particular interests in modeling, planning, and control for **contact-rich manipulation**. I also explore tactile sensing and learning-based methods to enhance the robustness and adaptability of robotic manipulation in unstructured environments.

JOURNAL PUBLICATIONS

A Tactile-Informed Bi-Level Framework with Complementary Motion-Contact Planning and Tracking for Robust Model-Based In-Hand Manipulation

2026

Y. Jiang, M. Yu, X. Zhu, M. Tomizuka, X. Li

The International Journal of Robotics Research (IJRR, conditionally accepted)

Arm-Aware Guided Dexterous Grasp Generation with Arm-Agnostic Grasp Models

2026

*Y. Jia**, *Y. Jiang**, *K. Lv*, *Y. Ren*, *X. Li*

IEEE Robotics and Automation Letters (RA-L)

Robotic In-Hand Manipulation for Large-Range Precise Object Movement: The RGMC Champion Solution

2025

M. Yu, Y. Jiang, C. Chen, Y. Jia, X. Li

IEEE Robotics and Automation Letters (RA-L)

Robust In-Hand Reorientation with Hierarchical RL-Based Motion Primitives and Model-Based Regrasping

2025

Y. Jiang, M. Yu, C. Chen, Y. Jia, X. Li

IEEE Robotics and Automation Practice (RA-P)

Analyzing Key Objectives in Human-to-Robot Retargeting for Dexterous Manipulation

2025

C. Xin, M. Yu, Y. Jiang, Z. Zhang, X. Li

IEEE Robotics and Automation Practice (RA-P)

A Complementary Framework for Human-Robot Collaboration with a Mixed AR-Haptic Interface

2023

X. Yan, Y. Jiang, C. Chen, L. Gong, M. Ge, X. Li

IEEE Transactions on Control Systems Technology (T-CST)

CONFERENCE PUBLICATIONS

CoorGrasp: Coordinated Contact Control for Adaptive Dexterous Grasping Under Uncertainty

2026

M. Yu, Y. Jiang, Y. Jia, X. Li

IEEE International Conference on Robotics and Automation (ICRA, oral, top%5)

Best Poster Award, ICRA 2026 Workshop on Dexterity with Multifingered Hands

Contact-Implicit Model Predictive Control for Dexterous In-Hand Manipulation: A Long-Horizon and Robust Approach

2024

Y. Jiang, M. Yu, X. Zhu, M. Tomizuka, X. Li

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

A Unified Interaction Control Framework for Safe Robotic Ultrasound Scanning with Human-Intention-Aware Compliance 2024

X. Yan, S. Luo, Y. Jiang, M. Yu, C. Chen, S. Zhu, G. Huang, S. Song, X. Li

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

Contact-Aware Non-Prehensile Manipulation For Object Retrieval in Cluttered Environments 2023

Y. Jiang, Y. Jia, X. Li

IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)

PREPRINTS

Guiding Unified Dexterous Grasp Synthesis Across Modes and Scales via Learned Human Priors 2026

M. Yu, Y. Jiang*, Y. Jia, K. Lv, X. Yan, L. Huang, X. Li*

submitted to 10th Annual Conference on Robot Learning (CoRL)

COMPETITIONS

9th Robotic Grasping and Manipulation Challenge (RGMC) held at ICRA 2024 2024

Y. Jiang, M. Yu, Y. Jia, C. Chen, X. Li

1st Place Winner & Most Elegant Solution

Virtual Manipulation Challenge held at ICRA 2023 2023

Y. Jiang, Y. Jia, Y. Chen, C. Chen, X. Li

2nd Place Winner

AWARDS AND HONORS

- **Outstanding Graduate of Beijing (Top 1%)**, Tsinghua University, Beijing June 2023
- **Distinguished Graduate of Tsinghua University (Top 2%)**, Tsinghua University June 2023
- **Tsinghua University Future Scholar (4/160)**, Tsinghua University May 2023
- **National Scholarship (Top 0.2%)**, Tsinghua University September 2022
- **Tsinghua Comprehensive Excellence Scholarship (Top 3%)**, Tsinghua University September 2020/2021

SERVICE

Reviewers

IJRR, T-RO, T-ASE, RA-L, ICRA, IROS, CoRL