

XIAOMENG XU

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EDUCATION

- Stanford University** 09/2023-now
PhD Candidate in Electrical Engineering, Advisor: Shuran Song
- Stanford University** 09/2023-06/2025
Masters in Electrical Engineering
- Tsinghua University** 08/2019-06/2023
Bachelor of Engineering in Automation (GPA: 3.96/4.0), Bachelor of Arts in Product Design

PUBLICATIONS

- Xiaomeng Xu**, Jisang Park, Han Zhang, Eric Cousineau, Aditya Bhat, Jose Barreiros, Dian Wang, Shuran Song, *HoMMI: Learning Whole-Body Mobile Manipulation from Human Demonstrations*. [Paper]
- Hojung Choi*, Yifan Hou*, Chuer Pan, Seongheon Hong, Austin Patel, **Xiaomeng Xu**, Mark Cutkosky, Shuran Song, *In-the-Wild Compliant Manipulation with UMI-FT*. IEEE International Conference on Robotics and Automation (ICRA 2026). [Paper]
- Xiaomeng Xu***, Yifan Hou*, Chendong Xin, Zeyi Liu, Shuran Song, *Compliant Residual DAGger: Improving Real-World Contact-Rich Manipulation with Human Corrections*. Neural Information Processing Systems (NeurIPS 2025), Best Paper Award at the Human-to-Robot Workshop (CoRL 2025). [Paper]
- Haoyu Xiong, **Xiaomeng Xu**, Jimmy Wu, Yifan Hou, Jeannette Bohg, Shuran Song, *Vision in Action: Learning Active Perception from Human Demonstrations*. Conference on Robot Learning (CoRL 2025). [Paper]
- Xiaomeng Xu**, Dominik Bauer, Shuran Song, *RoboPanoptes: The All-Seeing Robot with Whole-body Dexterity*. Robotics: Science and Systems (RSS 2025). [Paper]
- Xiaomeng Xu**, Huy Ha, Shuran Song, *Dynamics-Guided Diffusion Model for Sensor-less Robot Manipulator Design*. Conference on Robot Learning (CoRL 2024), Best Machine Learning Paper Award at the Morphology-Aware Policy and Design Learning Workshop (CoRL 2024). [Paper]
- Xiaomeng Xu***, Yanchao Yang*, Kaichun Mo, Boxiao Pan, Li Yi, Leonidas Guibas, *JacobiNeRF: NeRF Shaping with Mutual Information Gradients*. Conference on Computer Vision and Pattern Recognition (CVPR 2023). [Paper]
- Yun Liu*, **Xiaomeng Xu***, Weihang Chen, Haocheng Yuan, He Wang, Jing Xu, Rui Chen, Li Yi, *Enhancing Generalizable 6D Pose Tracking of an In-Hand Object with Tactile Sensing*. Robotics and Automation Letters (RAL 2023), IEEE International Conference on Robotics and Automation (ICRA 2024). [Paper]
- Xueyi Liu, **Xiaomeng Xu**, Anyi Rao, Chuang Gan, Li Yi, *AutoGPart: Intermediate Supervision Search for Generalizable 3D Part Segmentation*. Conference on Computer Vision and Pattern Recognition (CVPR 2022). [Paper]
- Guanhong Liu, Tianyu Yu, Zhihao Yao, Haiqing Xu, Yunyi Zhang, Xuhai Xu, **Xiaomeng Xu**, Mingyue Gao, Qirui Sun, Tingliang Zhang, Haipeng Mi, *ViviPaint: Creating Dynamic Painting with a Thermochromic Toolkit*. Multimodal Technologies and Interaction (MTI 2022). [Paper]

* authors with equal contribution

INTERNSHIP EXPERIENCE

Large Behavior Models Team @ Toyota Research Institute

Research Intern, Mentor: Eric Cousineau

06/2025-09/2025

Cambridge, MA

- Scaling Bimanual Mobile Manipulation with Egocentric Human Demonstrations

Stanford Geometric Computing Lab

Research Intern, Advisor: Prof. Leonidas Guibas

06/2022-08/2022

Stanford, CA

- [Chinese Undergraduate Visiting Research Program \(UGVR\)](#).
- Shaping a NeRF to encode mutual correlations of a scene via aligning Jacobians.

AWARDS

NeurIPS 2025 Scholar Award (Travel Grant)

10/2025

Best Paper Award at the Human-to-Robot Workshop (Conference on Robot Learning 2025)

09/2025

[Stanford Interdisciplinary Graduate Fellowship](#) (Awarded to outstanding doctoral students engaged in interdisciplinary research at Stanford University)

05/2025-now

Best Machine Learning Paper Award at the Morphology-Aware Policy and Design Learning Workshop (Conference on Robot Learning 2024)

11/2024

CVPR 2023 Travel Grant

06/2023

Outstanding Graduate (Awarded to top 2% graduates at Tsinghua University)

06/2023

Comprehensive Excellence Award (Scholarship awarded by Tsinghua University, top 5%)

10/2022

National Scholarship (Highest scholarship awarded by Chinese Government, top 0.1%)

10/2021

129 Scholarship (Highest scholarship for sophomores at Tsinghua University, top 1%)

10/2020

INVITED TALKS

Embodiment-Aware Robot Learning: Co-designing Robot Morphology, Sensing, and Control @ [The Helping Hands Lab](#), Northeastern University

08/2025

SERVICES

Teaching assistant of EE/CS227: Robot Perception

Co-organizer of RSS 2025 1st Workshop on Robot Hardware-Aware Intelligence, ICRA 2026 Workshop on Reinforcement Learning in the Era of Imitation Learning

Reviewer of RSS, CoRL, T-RO, RA-L, ICRA, IROS, Neurips, ICLR, ICML, CVPR, AAAI

TECHNICAL SKILLS

Computer Languages

Python, C/C++, MATLAB, Verilog/VHDL

Software

SolidWorks, AutoCAD, Rhino, Qt Creator, Multisim, Quartus

Hardware

3D Printing, Microcontroller, mechanical design, soldering, woodcraft

Tools

PyTorch, ROS, MuJoCo, IsaacGym