

# YUNSHUANG LI

☎ 215-397-8150 ✉ [yunshuan@usc.edu](mailto:yunshuan@usc.edu) 🌐 [li-yunshuang.github.io](https://li-yunshuang.github.io) 🎓 [Google Scholar](#)

## Education

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**University of Southern California**, Ph.D. in Computer Science 08/2024 – present

*Department of Computer Science, Advisor: Daniel Seita & Gaurav Sukhatme*

**University of Pennsylvania**, M.S. in Robotics 08/2022 – 05/2024

*Department of Computer and Information Science, Advisor: Dinesh Jayaraman*

**Zhejiang University**, B.S. in Automatic Control 08/2018 – 07/2022

*Chu Kochen Honors College, Dual degree in Mechanical Engineering*

## Publication

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- 1 **Learning Geometry-Aware Nonprehensile Pushing and Pulling with Dexterous Hands**

*Yunshuang Li, Yiyang Ling, Gaurav Sukhatme, Daniel Seita*

Under Review, 2025 [PDF] [Website]

- 2 **Motion Capture with Millimeter-Wave Tags**

*Xin Yang, Freddy Yifei Liu, Yunshuang Li, Yao Gong, Dinesh Jayaraman, Omid Abari, Mingmin Zhao*

SenSys, 2025 [PDF] [Website]

- 3 **Task-Oriented Hierarchical Object Decomposition for Visuomotor Control**

*Jianing Qian, Yunshuang Li, Bernadette Bucher, Dinesh Jayaraman*

8th Annual Conference on Robot Learning (CoRL), 2024 [PDF] [Website]

- 4 **DROID: A Large-Scale In-the-Wild Robot Manipulation Dataset**

*Alexander Khazatsky\*, Karl Pertsch\* (et al., including Yunshuang Li)*

RSS 2024 [PDF] [Website]

- 5 **Universal Visual Decomposer : Long-Horizon Manipulation Made Easy**

*Zichen Zhang\*, Yunshuang Li\*, Osbert Bastani, Abhishek Gupta, Dinesh Jayaraman,*

*Yecheng Jason Ma<sup>†</sup>, Luca Weihs<sup>†</sup>*

CoRL Learning Effective Abstractions for Planning workshop (**Oral, Best Paper Award**), 2023;

NeurIPS Foundation Models for Decision Making workshop (**Oral**), 2023;

ICRA 2024 (**Best Paper Finalist in Computer Vision**) [PDF] [Website]

- 6 **Open X-Embodiment: Robotic learning datasets and RT-X models**

*Large collaboration (et al., including Yunshuang Li)*

ICRA 2024 (**Best Conference Paper Award**) [PDF] [Website]

- 7 **Im2Contact: Vision-Based Contact Localization Without Touch or Force Sensing**

*Leon Kim, Yunshuang Li, Michael Posa, Dinesh Jayaraman*

7th Annual Conference on Robot Learning (CoRL), 2023 [PDF] [Website]

- 8 **PEg TRAnsfer Workflow recognition challenge report: Does multi-modal data improve recognition?**

*Arnaud Huauilmé, Kanako Harada, (et al., including Yunshuang Li)*

Computer Methods and Programs in Biomedicine, 2023 [PDF]

## 9 Control of Pneumatic Artificial Muscles with SNN-based Cerebellar-like Model

*Yunshuang Li\**, Hongbo Zhang\*, Yipin Guo\*, Xinyi Chen, Qinyuan Ren

International Conference on Social Robotics (ICSR), 2021 [PDF]

## 10 Collaborative Recognition of Feasible Region with Aerial and Ground Robots through DPCN

*Yunshuang Li*, Zheyuan Huang, Zexi Chen, Yue Wang, Rong Xiong

IEEE International Conference on Real-time Computing and Robotics (RCAR), 2021 [PDF]

## Awards

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USC Viterbi School of Engineering Fellowship	2024
USC Women in Science and Engineering Graduate Top-Off Award	2024
CoRL Travel Grant	2023 & 2024
Outstanding Masters Student Researcher Award, SEAS, UPenn	2024
Best Conference Paper Award, ICRA	2024
Best Paper Finalist in Computer Vision, ICRA	2024
Best Paper Award at CoRL LEAP workshop	2023
President Gutmann Leadership Award, administered by GAPSA, UPenn	2023
Chiang Chen Oversea Graduate Scholarship	2022
Outstanding Graduate of Zhejiang Province	2022
National Scholarship issued by Ministry of Education of the People's Republic of China	2021
Champion of International Robotic Workflow Recognition Challenge in MICCAI 2021	2021

## Service

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Conference Reviewer: CoRL, ICRA

Workshop Reviewer: NeurIPS, ICRA, RSS

Teaching Assistant for CSCI 103 - Introduction to Programming, at USC. Spring 2025

Teaching Assistant for CIS 5190 - Applied Machine Learning, at UPenn. Spring 2024

Teaching Assistant for CIS 5200 - Machine Learning, at UPenn. Fall 2023

Teaching Assistant for MEAM 5200 - Introduction to Robotics, at UPenn. Spring 2023

## Mentorship

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Ethan Foong, Undergrad from Northwestern University Next:

## Miscellaneous Experience

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Volunteer for Robotic Science and System 2025	June 2025
Board Member of Penn Chinese Dance Club	2023
Volunteer for 5th Annual Learning for Dynamics & Control Conference (L4DC)	June 2023
Instructor of Python Club at Carver Engineering and Science High School, Philadelphia	Spring 2023
Volunteer for GRASP ROBO Master's Student Open House	March 2023
Volunteer Instructor for a Rural High School, Yunnan, China	Summer 2020

## Technical Skills

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**Languages:** Python, MATLAB, C, C++, HTML/CSS, L<sup>A</sup>T<sub>E</sub>X

**Developer Tools:** VS Code, Anaconda, Docker

**Technologies/Frameworks:** Linux, ROS, PyTorch, Tensorflow, AutoCAD, Solidworks, GitHub