

Mohit Shridhar

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RESEARCH INTERESTS Language Grounding, Action-Centric Perception, Human-Robot Interaction, Unsupervised and Self-Supervised Representation-Learning, 3D Perception and Graphics

EDUCATION **University of Washington** 2018 - 2023
PhD in Computer Science
Advised by: Dieter Fox
Committee: Leslie Kaelbling, Luke Zettlemoyer, Blake Hannaford

University of Washington 2018 - 2020
Masters in Computer Science

National University of Singapore 2012 - 2016
B.Eng in Computer Engineering, Minor in Techno-Entrepreneurship
Honors with Distinction
Advised by: David Hsu

Stanford 2015 - 2015
NUS Overseas College - one year program

PUBLICATIONS Google Scholar, Semantic Scholar.

Conferences

- (C7) **Perceiver-Actor: A Multi-Task Transformer for Robotic Manipulation**
Conference on Robot Learning (CoRL) 2022
[Mohit Shridhar](#), Lucas Manuelli, Dieter Fox
- (C6) **CLIPort: What and Where Pathways for Robotic Manipulation**
Conference on Robot Learning (CoRL) 2021
[Mohit Shridhar](#), Lucas Manuelli, Dieter Fox
- (C5) **Language Grounding with 3D Objects**
Conference on Robot Learning (CoRL) 2021
Jesse Thomason*, [Mohit Shridhar](#)*, Yonatan Bisk, Chris Paxton, Luke Zettlemoyer
- (C4) **ALFWorld: Aligning Text and Embodied Environments for Interactive Learning**
International Conference on Learning Representations (ICLR) 2021
[Mohit Shridhar](#), Xingdi Yuan, Marc-Alexandre Côté, Yonatan Bisk, Adam Trischler, Matthew Hausknecht
- (C3) **ALFRED: A Benchmark for Interpreting Grounded Instructions for Everyday Tasks.**
Computer Vision and Pattern Recognition (CVPR) 2020
[Mohit Shridhar](#), Jesse Thomason, Daniel Gordon, Yonatan Bisk, Winson Han, Roozbeh Mottaghi, Luke Zettlemoyer, Dieter Fox
- (C2) **Interactive Visual Grounding of Referring Expressions for Human-Robot Interaction.**
Robotics: Science and Systems (RSS) 2018
[Mohit Shridhar](#), David Hsu
- (C1) **XPose: Reinventing user interaction with flying cameras.**
Robotics: Science and Systems (RSS) 2017
Ziquan Lan, [Mohit Shridhar](#), David Hsu, Shengdong Zhao
★ Best Systems Paper Award

Preprints

- (P1) **Retrospectives on the Embodied AI Workshop.**
ArXiv 2022
Matt Deitke et al.

Journals

- (J1) **INGRESS: Interactive Visual Grounding of Referring Expressions.**
International Journal of Robotics Research (IJRR) 2020
Mohit Shridhar, Dixant Mittal, David Hsu

Workshops

- (W1) **Grounding Spatio-Semantic Referring Expressions for Human-Robot Interaction.**
RSS Workshop on Spatial-Semantic Representations in Robotics 2017
Mohit Shridhar, David Hsu

EXPERIENCE	Dyson: Research Scientist Dyson Robot Learning Lab – London Stephen James' Team	July 2023 - Present
	NVIDIA: Research Intern Robotics Lab – Seattle Advised by Prof. Dieter Fox	June 2022 - Sept 2022
	Microsoft Research: Intern Reinforcement Learning Group – Seattle Advised by Dr. Matthew Hausknecht	June 2020 - Sept 2020
	NVIDIA: Research Intern Robotics Lab – Seattle Advised by Prof. Dieter Fox	Jan 2020 - May 2020
	M²AP Lab: Research Assistant Advised by Prof. David Hsu	Jan 2016 - Aug 2018
	Meta Co: Computer Vision and Graphics Intern YCombinator'13 Augmented-Reality Headset Startup <ul style="list-style-type: none">• Worked on low-latency visual-inertial SLAM.• Built a 3D-Skype system with real-time reconstruction in Unity3D.• Part of CEO's ensemble for building investor demos during Series B (\$50M round).	Jan 2015 - Dec 2015
	Hope Technik: Robotics Intern Medical Transport AGV Platform <ul style="list-style-type: none">• Worked on path-planning for autonomous medical transport in hospitals.• Implemented a ROS-based multi-map manager for navigating across floors.• Developed an OculusRift based demonstration tool to showcase the AGV.	May 2014 - Aug 2014
PROJECTS	Free Viewpoint 3D Telepresence System A realtime, volumetric video conferencing system.	2013 - 2016
	Monocular Visual-SLAM for Mobile Platforms A keyframe-based 6DOF visual tracker for Android platforms.	2015

Dense-Semantic Mapping 2017
Combined dense image-captioning with visual-SLAM for object search.

SERVICES Reviewer for CoRL, ICRA, IROS, RSS, T-HRI, RA-L, ACL, SIGGRAPH, ICCV, CVPR, TMLR, IJCAI.

TECHNICAL SKILLS **Languages:** Python (most familiar), C++
Frameworks: PyTorch, OpenCV, ROS, Unity3D, MTurk

ORGANIZER Co-Organizer: EAI Workshop at CVPR-23
Co-Organizer: Language and Robot Learning (LangRob) Workshop at CoRL-22
Co-Organizer: ALFRED and TEACH Challenge @ EAI Workshop at CVPR-22
Co-Organizer: ALFRED Challenge @ EAI Workshop at CVPR-21
Co-Organizer: Embodied Vision, Actions & Language Workshop (EVAL) at ECCV-20

AWARDS & HONORS NVIDIA Graduate Fellowship (2022)
Paul G. Allen Fellowship (2018), University of Washington
Best Systems Paper Award in Memory of Seth Teller (2017), RSS
NUS 30th Annual Faculty Innovation and Research Award (2016), Undergrad Thesis
NUS Overseas College Scholarship (2015), Exchange Program at Stanford
ASEANpreneurs Autodesk Design Challenge (2014), First Place

INVITED TALKS Mila Robot Learning Seminar (May 2023)
Stanford Vision and Learning Lab (May 2023)
Boston Dynamics AI Institute (Feb 2023)
RAIL Lab – Postdoc Job Talk @ Berkeley (Feb 2023)
AIR Seminar @ UofT (Oct 2022)
Machines in Motion Lab @ NYU (Oct 2022)
AI & Analytics – Talk Series @ A*STAR (Aug 2022)
iGibson Team @ Stanford (Mar 2022)
CAIR Lab @ Columbia (Jan 2022)
Language & Intelligence Group @ MIT (Dec 2021)
Robotics Group @ Brown (Oct 2021)
RAIVN Lab @ UW (Sept 2021)
AdaComp Lab @ NUS (Oct 2021)

GUEST LECTURES University of Minnesota
Course: Deep Learning for Robot Perception (2023)