

Mohit Shridhar

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RESEARCH INTERESTS Language Grounding, Task and Motion Planning, Human-Robot Interaction, Unsupervised Representation-Learning

EDUCATION **University of Washington** 2018 - Present
PhD Student in Computer Science
Advised by: Dieter Fox

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.

Preprints

(P2) **CLIPort: What and Where Pathways for Robotic Manipulation**

Under Review, 2021

[Mohit Shridhar](#), Lucas Manuelli, Dieter Fox

(P1) **Language Grounding with 3D Objects**

Under Review, 2021

Jesse Thomason*, [Mohit Shridhar*](#), Yonatan Bisk,

Chris Paxton, Luke Zettlemoyer

Conferences

(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

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	NVIDIA: Research Intern (Part-time) Robotics Lab – Seattle Advised by Prof. Dieter Fox	Jan 2021 - Present
	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	Jan 2015 - Dec 2015
	<ul style="list-style-type: none">• Worked on low-latency visual-inertial SLAM: feature tracking, sensor calibration, IMU integration.• Built a 3D-Skype system with real-time reconstruction, and human-pose tracking based collaborative interface.• Part of CEO’s ensemble for building investor demos during Series B (\$50M round).	
	Hope Technik: Robotics Intern Medical Transport AGV Platform	May 2014 - Aug 2014
<ul style="list-style-type: none">• Worked on path-planning and obstacle avoidance for autonomous medical transport in hospitals.• Implemented a multi-map manager to allow a swarm of robots to navigate across various floors.• Developed an OculusRift based demonstration tool to showcase the AGV in simulated working conditions.		
PROJECTS	Free Viewpoint 3D Telepresence System A realtime, volumetric video conferencing system using commodity RGB-D cameras.	2013 - 2016
	Monocular Visual-SLAM for Mobile Platforms A keyframe-based 6DOF visual tracker for Android platforms.	2015
	Dense-Semantic Mapping Combined dense image-captioning with visual-SLAM for object search.	2017

SERVICES

Reviewer for CoRL, RSS, T-HRI, RA-L, IJCAI, ACL, SIGGRAPH, ICCV.

ORGANIZER

Co-Organizer: Embodied Vision, Actions & Language Workshop (EVAL) at ECCV-20

Co-Organizer: ALFRED Challenge @ Embodied AI Workshop at CVPR-21

**AWARDS &
HONORS**

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

**TECHNICAL
SKILLS**

Languages: Python (most familiar), C++

Frameworks: PyTorch, OpenCV, ROS, Unity3D