

# Mohit Shridhar

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

**EDUCATION** **University of Washington** 2018 - Present  
*PhD Candidate 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.

## Conferences

- (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

## 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

<b>EXPERIENCE</b>	<b>NVIDIA: Research Intern (Part-time)</b> Robotics Lab – Seattle Advised by Prof. Dieter Fox	Mar 2021 - Present
	<b>Microsoft Research: Intern</b> Reinforcement Learning Group – Seattle Advised by Dr. Matthew Hausknecht	June 2020 - Sept 2020
	<b>NVIDIA: Research Intern</b> Robotics Lab – Seattle Advised by Prof. Dieter Fox	Jan 2020 - May 2020
	<b>M<sup>2</sup>AP Lab: Research Assistant</b> Advised by Prof. David Hsu	Jan 2016 - Aug 2018
	<b>Meta Co: Computer Vision and Graphics Intern</b> YCombinator’13 Augmented-Reality Headset Startup	Jan 2015 - Dec 2015
	<ul style="list-style-type: none"><li>• Worked on low-latency visual-inertial SLAM: feature tracking, sensor calibration, IMU integration.</li><li>• Built a 3D-Skype system with real-time reconstruction, and human-pose tracking based collaborative interface.</li><li>• Part of CEO’s ensemble for building investor demos during Series B (\$50M round).</li></ul>	
<b>Hope Technik: Robotics Intern</b> Medical Transport AGV Platform	May 2014 - Aug 2014	
<ul style="list-style-type: none"><li>• Worked on path-planning and obstacle avoidance for autonomous medical transport in hospitals.</li><li>• Implemented a multi-map manager to allow a swarm of robots to navigate across various floors.</li><li>• Developed an OculusRift based demonstration tool to showcase the AGV in simulated working conditions.</li></ul>		
<b>PROJECTS</b>	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, CVPR.

**ORGANIZER**

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

**TECHNICAL  
SKILLS**

**Languages:** Python (most familiar), C++

**Frameworks:** PyTorch, OpenCV, ROS, Unity3D

**INVITED  
TALKS**

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)