## Roozbeh Mottaghi

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*Google Scholar:* https://scholar.google.com/citations?user=CCV58dgAAAAJ


PROFESSIONAL EXPERIENCE

**FAIR at Meta**

*Senior AI Research Scientist Manager* **Aug 2022 to now**

Leading a team of 20+ people working on dexterous manipulation (learning from internet videos, simulation, and robot tele-operation), 3D perception, long-horizon planning and reasoning, vision-language-action models, and developing robot simulators.
**Highlighted** projects include:

- PARTNR – A suite of models and a benchmark for reasoning and planning for human-robot collaboration.
  - Announced by Mark Zuckerberg [Link][Link]
  - Demoed at multiple places including an event before the White House Correspondents' Dinner [Link]
- Habitat 3.0 – A simulator designed to train and evaluate models developed for human-robot collaboration tasks. [Github]
- GO to AnyThing (GOAT) – A state-of-the-art navigation model that enables robots to generalize across multiple goal modalities, such as visual targets, object categories, and natural-language descriptions. [YouTube]
- HomeRobot – A framework for open-vocabulary mobile manipulation. [Github]
- PerceptionCache – A 3D scene understanding model that maintains a persistent representation of dynamic environments involving robots and humans.

**Paul G. Allen School of Computer Science & Engineering**
**University of Washington**

*Affiliate Associate Professor* **Sep 2019 to now**

Co-advising PhD students on computer vision and embodied AI problems:
**Highlighted** projects include:

- ObjectForesight – A world model for how objects move in the 3D space.
- ODIN – A world model for navigating 3D scenes.
- AAP – An adaptive model that learns the impact of robot actions on the fly based on visual observations.
- MuscleTorch – Representation learning from human observations and actions.
- DECADE – Model pre-training with ego-centric observations and actions of a dog.

**Allen Institute for Artificial Intelligence (AI2)**

*Research Manager* **Jan 2020 to Aug 2022**

*Senior Research Scientist* **May 2017 to Jan 2020**

*Research Scientist* **Jan 2015 to May 2017**

Research Manager of the Perceptual Reasoning and Interaction Research (PRIOR) team, leading a team of 10+ people working on various Embodied AI and Computer

Vision problems such as navigation, manipulation, and instruction following, multi-modal models, learning via interaction, and knowledge-based question answering. **Highlighted** projects include:

- AI2-THOR – An Embodied AI simulator widely used for robot navigation, manipulation, and instruction following. [Github]
- ProcTHOR – A large scale simulator for robot training. Received the Outstanding Paper Award at NeurIPS 2022.
- OK-VQA – A visual question answering benchmark requiring reasoning and world knowledge. [Project page]
- ALFRED – Interpreting grounded instructions for everyday robot tasks.
- Visual Navigation – A Deep Reinforcement Learning approach for visual navigation.
- Unified-IO – A unified model for vision, language, and multi-modal tasks.

**Vicarious**

*Senior Researcher* **Oct 2014 to Dec 2014**

**Computational Vision and Geometry Lab, Stanford University**

*Postdoctoral Researcher* **Sep 2013 to Sep 2014**

## Education

**University of California-Los Angeles**, Los Angeles, California USA

PhD., Computer Science **Sep 2008 to Sep 2013**

**Georgia Institute of Technology**, Atlanta, Georgia USA

M.Sc., Computer Science **Aug 2006 to Aug 2008**

**Simon Fraser University**, Burnaby, British Columbia Canada

M.A.Sc., Engineering Science **Sep 2003 to Apr 2006**

**Sharif University of Technology**, Tehran, Iran

B.Sc., Computer Engineering **Sep 1999 to Jul 2003**

## Publications

P. Parashar*, J. Krantz*, M. Chang*, K. Shah, X. Puig, **R. Mottaghi**. **Planning with an Embodied Learnable Memory**, International Conference on Learning Representations (ICLR), 2026.
(* Randomly ordered equal contribution)

M. Patel, X. Puig, R. Desai, **R. Mottaghi**, S. Chernova, J. Truong, A. Rai. **ADAPT: Actively Discovering and Adapting to Preferences for any Task**, Conference on Language Modeling (CoLM), 2025.

*(alphabetical order)* M. Chang, G. Chhablani, A. Clegg, M. Dallaire Cote, R. Desai, M. Hlavac, V. Karashchuk, J. Krantz, **R. Mottaghi**, P. Parashar, S. Patki, I. Prasad, X. Puig, A. Rai, R. Ramrakhya, D. Tran, J. Truong, J. M. Turner, E. Undersander, T.-Y. Yang, **PARTNR: A Benchmark for Planning and Reasoning in Embodied Multi-agent Tasks**, International Conference on Learning Representations (ICLR), 2025.

M. Wallingford, A. Bhattad, A. Kusupati, V. Ramanujan, M. Deitke, A. Kembhavi, **R. Mottaghi**, W.-C. Ma, A. Farhadi, **From an Image to a Scene: Learning to Imagine the World from a Million 360° Videos**, Advances in Neural Information Processing Systems (NeurIPS), 2024.

S. Y. Min, X. Puig, D. S. Chaplot, T.-Y. Yang, P. Parashar, A. Rai, R. Salakhutdinov, Y. Bisk, **R. Mottaghi**, **Situated Instruction Following**, European Conference on Computer Vision (ECCV), 2024.

H. Bharadhwaj, **R. Mottaghi***, A. Gupta*, S. Tulsiani*, **Track2Act: Predicting Point Tracks from Internet Videos enables Diverse Robot Manipulation**, European Conference on Computer Vision (ECCV), 2024.
(* Equal advising)

J. Li, A. Clegg, **R. Mottaghi**, J. Wu, X. Puig*, C. K. Liu*, **Controllable Human-Object Interaction Synthesis**, European Conference on Computer Vision (ECCV), 2024.
(* Equal advising)

M. Khanna, R. Ramrakhya, G. Chhablani, S. Yenamandra, T. Gervet, M. Chang, Z. Kira, D. S. Chaplot, D. Batra, **R. Mottaghi**, **GOAT-Bench: A Benchmark for Multi-Modal Lifelong Navigation**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2024.

M. Chang, T. Gervet, M. Khanna, S. Yenamandra, D. Shah, S. Y. Min, K. Shah, C. Paxton, S. Gupta, D. Batra, **R. Mottaghi**, J. Malik, D. S. Chaplot, **GOAT: GO to Any Thing**, Robotics: Science and Systems (RSS), 2024.

X. Puig*, E. Undersander*, A. Szot*, M. Dallaire Cote*, T.-Y. Yang*, R. Partsey*, R. Desai*, A. W. Clegg*, M. Hlavac, S. Y. Min, V. Vondruš, T. Gervet, V.-P Berges, J. M. Turner, O. Maksymets, Z. Kira, M. Kalakrishnan, J. Malik, D. S. Chaplot, U. Jain, D. Batra, A. Rai†, **R. Mottaghi**†, **Habitat 3.0: A Co-Habitat for Humans, Avatars and Robots**, International Conference on Learning Representations (ICLR), 2024.
(*: Core team, †: Project leads)

M. Wallingford*, V. Ramanujan*, A. Fang, A. Kusupati, **R. Mottaghi**, A. Kembhavi, L. Schmidt, A. Farhadi, **Neural Priming for Sample-Efficient Adaptation**, Advances in Neural Information Processing Systems (NeurIPS), 2023.
(* Equal contribution)

S. Yenamandra, A. Ramachandran, K. Yadav, A. Wang, M. Khanna, T. Gervet, T.-Y. Yang, V. Jain, A. Clegg, J. Turner, Z. Kira, M. Savva, A. Chang, D. Chaplot, D. Batra, **R. Mottaghi**, Y. Bisk, C. Paxton, **HomeRobot: Open-Vocabulary Mobile Manipulation**, Conference on Robot Learning (CoRL), 2023.

J. Krantz, T. Gervet, K. Yadav, A. Wang, C. Paxton, **R. Mottaghi**, D. Batra, J. Malik, S. Lee, D. Chaplot, **Navigating to Objects Specified by Images**, International Conference on Computer Vision (ICCV), 2023.

V. Berges*, A. Szot*, D. Chaplot, A. Gokaslan, **R. Mottaghi**, D. Batra, E. Undersander, **Galactic: Scaling End-to-End Reinforcement Learning for Rearrangement at 100k Steps-Per-Second**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023.
(* Equal contribution)

K. Zeng, L. Weihs, **R. Mottaghi**, Ali Farhadi, **Moving Forward by Moving Backward: Embedding Action Impact over Action Semantics**, International Conference on Learning Representations (ICLR), 2023. (**Oral presentation**)

J. Lu, C. Clark, R. Zellers, **R. Mottaghi**, Aniruddha Kembhavi, **Unified-IO: A Unified Model for Vision, Language, and Multi-modal Tasks**, International Conference on Learning Representations (ICLR), 2023. (**Spotlight presentation**)

M. Wallingford, A. Kusupati, A. Fang, V. Ramanujan, A. Kembhavi, **R. Mottaghi**, A. Farhadi. **Neural Radiance Field Codebooks**, International Conference on Learning Representations (ICLR), 2023.

M. Deitke, E. VanderBilt, A. Herrasti, L. Weihs, J. Salvador, K. Ehsani, W. Han, E. Kolve, A. Farhadi, A. Kembhavi, **R. Mottaghi**. **ProcTHOR: Large-Scale Embodied AI Using Procedural Generation**, Advances in Neural Information Processing Systems (NeurIPS), 2022.
(**Outstanding Paper Award**)

K. Singh, L. Weihs, A. Herrasti, J. Choi, A. Kembhavi, **R. Mottaghi**. **Ask4Help: Learning to Leverage an Expert for Embodied Tasks**, Advances in Neural Information Processing Systems (NeurIPS), 2022.

L. Weihs, A. Yuile, R. Baillargeon, C. Fisher, G. Marcus, **R. Mottaghi**, A. Kembhavi. **Benchmarking Progress to Infant-Level Physical Reasoning in AI**, Transactions on Machine Learning Research (TMLR), 2022.

D. Schwenk, A. Khandelwal, C. Clark, K. Marino, **R. Mottaghi**. **A-OKVQA: A Benchmark for Visual Question Answering using World Knowledge**, European Conference on Computer Vision (ECCV), 2022.

K. Ehsani, A. Farhadi, A. Kembhavi, **R. Mottaghi**. **Object Manipulation via Visual Target Localization**, European Conference on Computer Vision (ECCV), 2022.

K. Kotar and **R. Mottaghi**. **Interactron: Embodied Adaptive Object Detection**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

S. Gadre, K. Ehsani, S. Song, **R. Mottaghi**. **Continuous Scene Representations for Embodied AI**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

K. Dwivedi, G. Roig, A. Kembhavi, **R. Mottaghi**. **What do navigation agents learn about their environment?**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.

A. Khandelwal*, L. Weihs*, **R. Mottaghi**, A. Kembhavi. **Simple but Effective: CLIP Embeddings for Embodied AI**, IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022.
(* Equal contribution)

J. Wu, J. Lu, A. Sabharwal, **R. Mottaghi**. **Multi-Modal Answer Validation for Knowledge-Based VQA**, AAAI Conference on Artificial Intelligence (AAAI), 2022. (**Oral presentation**)

G. Peng, J. Lu, H. Li, **R. Mottaghi**, A. Kembhavi. **Container: Context Aggregation Networks**, in Neural Information Processing Systems (NeurIPS), 2021.

K. Kotar, G. Ilharco, L. Schmidt, K. Ehsani, **R. Mottaghi**. **Contrasting Contrastive Self-Supervised Representation Learning Pipelines**, in International Conference on Computer Vision (ICCV), 2021.

P. Chattopadhyay, J. Hoffman, **R. Mottaghi**, A. Kembhavi. **RobustNav : Towards Benchmarking Robustness in Embodied Navigation**, in International Conference on Computer Vision (ICCV), 2021. (**Oral presentation**)

K. Singh, S. Bhambri, B. Kim, **R. Mottaghi**, J. Choi. **Factorizing Perception and Policy for Interactive Instruction Following**, in International Conference on Computer Vision (ICCV), 2021.

R. Zellers, A. Holtzman, M. Peters, **R. Mottaghi**, A. Kembhavi, A. Farhadi, Y. Choi. **PIGLeT: Language Grounding Through Neuro-Symbolic Interaction in a 3D World**, in the 59th Annual Meeting of the Association for Computational Linguistics (ACL), 2021. (**Oral presentation**)

L. Weihs, M. Deitke, A. Kembhavi, **R. Mottaghi**. **Visual Room Rearrangement**, in IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021. (**Oral presentation**)

K. Ehsani, W. Han, A. Herrasti, E. VanderBilt, E. Kolve, L. Weihs, A. Kembhavi, **R. Mottaghi**. **ManipulaTHOR: A Framework for Visual Object Manipulation**, in IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021. (**Oral presentation**)

K. Zeng, L. Weihs, A. Farhadi, **R. Mottaghi**. **Pushing it out of the Way: Interactive Visual Navigation**, in IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2021.

L. Weihs, A. Kembhavi, K. Ehsani, S. M. Pratt, W. Han, A. Herrasti, E. Kolve, D. Schwenk, **R. Mottaghi**, A. Farhadi. **Learning Generalizable Visual Representations via Interactive Gameplay**, in International Conference on Learning Representations (ICLR), 2021. (**Oral presentation**)

K. Ehsani, D. Gordon, T. H. D. Nguyen, **R. Mottaghi**, A. Farhadi. **What Can You Learn from Your Muscles? Learning Visual Representation from Human Interactions**, in International Conference on Learning Representations (ICLR), 2021.

D. Batra, A. X. Chang, S. Chernova, A. J. Davison, J. Deng, V. Koltun, S. Levine, J. Malik, I. Mordatch, **R. Mottaghi**, M. Savva, H. Su. **Rearrangement: A Challenge for Embodied AI**, arXiv, 2020.

M. Lohmann, J. Salvador, A. Kembhavi, **R. Mottaghi**. **Learning About Object by Learning to Interact with Them**, in Neural Information Processing Systems (NeurIPS), 2020.

J. S. Park, C. Bhagavatula, **R. Mottaghi**, A. Farhadi, Y. Choi. **Visual Commonsense Graphs: Reasoning about the Dynamic Context of a Still Image**, in European Conference on Computer Vision (ECCV), 2020. (**Spotlight presentation**)

M. Deitke*, W. Han*, A. Herrasti*, A. Kembhavi*, E. Kolve*, **R. Mottaghi***, J. Salvador*, D. Schwenk*, E. VanderBilt*, M. Wallingford*, L. Weihs*, M. Yatskar*, and A. Farhadi. **RoboTHOR: An Open Simulation-to-Real Embodied AI Platform**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2020.
(* Alphabetically listed equal contribution)

K. Zeng, **R. Mottaghi**, L. Weihs, and A. Farhadi. **Visual Reaction: Learning To Play Catch With Your Drone**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2020.

M. Shridhar, J. Thomason, D. Gordon, Y. Bisk, W. Han, **R. Mottaghi**, L. Zettlemoyer, and D. Fox. **ALFRED: A Benchmark for Interpreting Grounded Instructions for Everyday Tasks**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2020.

M. Wortsman, K. Ehsani, M. Rastegari, A. Farhadi, and **R. Mottaghi**. **Learning to Learn How to Learn: Self-Adaptive Visual Navigation using Meta-Learning**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2019. (**Oral presentation**)

K. Marino, M. Rastegari, A. Farhadi, and **R. Mottaghi**. **OK-VQA: A Visual Question Answering Benchmark Requiring External Knowledge**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2019.

W. Yang, X. Wang, A. Farhadi, A. Gupta, and **R. Mottaghi**. **Visual Semantic Navigation using Scene Priors**, in International Conference on Learning Representations (ICLR), 2019.

P. Anderson, A. Chang, D. Chaplot, A. Dosovitskiy, S. Gupta, V. Koltun, J. Kosecka, J. Malik, **R. Mottaghi**, M. Savva, and A. R. Zamir. **On Evaluation of Embodied Navigation Agents**, arXiv, 2018.

K. Ehsani, H. Bagherinezhad, J. Redmon, **R. Mottaghi**, and A. Farhadi. **Who Let The Dogs Out? Modeling Dog Behavior From Visual Data**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2018.

K. Ehsani , **R. Mottaghi**, and A. Farhadi. **SeGAN: Segmenting and Generating the Invisible**, in Conference on Computer Vision and Pattern Recognition (CVPR), 2018. (**Spotlight presentation**)

Y. Zhu*, D. Gordon*, E. Kolve, D. Fox, L. Fei-Fei, A. Gupta, **R. Mottaghi**, and A. Farhadi. **Visual Semantic Planning using Deep Successor Representations**, in International Conference on Computer Vision (ICCV), 2017. (* Equal contribution)

**R. Mottaghi**, C. Schenck, D. Fox, and A. Farhadi. **See the Glass Half Full: Reasoning about Liquid Containers, their Volume and Content**, in International Conference on Computer Vision (ICCV), 2017.

Y. Zhu, **R. Mottaghi**, E. Kolve, J. Lim, A. Gupta, L. Fei-Fei, and A. Farhadi. **Target-driven Visual Navigation in Indoor Scenes using Deep Reinforcement Learning**, in International Conference on Robotics and Automation (ICRA), 2017.

**R. Mottaghi**, M. Rastegari, A. Gupta, and A. Farhadi. **"What happens if..." Learning to Predict the Effect of Forces in Images**, in European Conference on Computer Vision (ECCV), 2016.

Y. Xiang, W. Kim, W. Chen, J. Ji, C. Choy, H. Su, **R. Mottaghi**, L. Guibas, and S. Savarese. **ObjectNet3D: A Large Scale Database for 3D Object Recognition**, in European Conference on Computer Vision (ECCV), 2016.

**R. Mottaghi**, H. Bagherinezhad, M. Rastegari, and A. Farhadi. **Newtonian Image Understanding: Unfolding the Dynamics of Objects in Static Images**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016.

**R. Mottaghi**, H. Hajishirzi, and A. Farhadi. **A Task-oriented Approach for Cost-sensitive Recognition**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2016.

**R. Mottaghi**, S. Fidler, A. Yuille, R. Urtasun, and D. Parikh. **Human-Machine CRFs for Identifying Bottlenecks in Scene Understanding**, in IEEE Transaction on Pattern Analysis and Machine Intelligence (TPAMI), 2016.

A. Yuille, **R. Mottaghi**. **Complexity of Representation and Inference in Compositional Models with Part Sharing**, To appear in Journal of Machine Learning Research (JMLR), Special Issue on Representation Learning, 2015.

**R. Mottaghi**, Y. Xiang, S. Savarese. **A Coarse-to-Fine Model for 3D Pose Estimation and Sub-category Recognition**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2015.

Y. Xiang*, C. Song*, **R. Mottaghi**, S. Savarese. **Monocular Multiview Object Tracking with 3D Aspect Parts**, in European Conference on Computer Vision (ECCV), 2014. (* Equal contribution)

**R. Mottaghi**, X. Chen, X. Liu, S. Fidler, R. Urtasun, A. Yuille. **The Role of Context for Object Detection and Semantic Segmentation in the Wild**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2014.

X. Chen, **R. Mottaghi**, X. Liu, N. Cho, S. Lee, S. Fidler, R. Urtasun, A. Yuille. **Detect What You Can: Detecting and Representing Objects using Holistic Models and Body Parts**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2014.

Y. Xiang, **R. Mottaghi**, S. Savarese. **Beyond PASCAL: A Benchmark for 3D Object Detection in the Wild**, in IEEE Winter Conference on Applications of Computer Vision (WACV), 2014.

A. Yuille, **R. Mottaghi**. **Complexity of Representation and Inference in Compositional Models with Part Sharing**, in International Conference on Learning Representations (ICLR), 2013.

**R. Mottaghi**, S. Fidler, J. Yao, R. Urtasun, and D. Parikh. **Analyzing Semantic Segmentation Using Human-Machine Hybrid CRFs**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2013.

S. Fidler, **R. Mottaghi**, A. Yuille, R. Urtasun. **Bottom-up Segmentation for Top-down Detection**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2013.

**R. Mottaghi**. **Augmenting Deformable Part Models with Irregular-shaped Object Patches**, in IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2012.

**R. Mottaghi**, A. Ranganathan, and A. Yuille. **A Compositional Approach to Learning Part-based Models of Objects**, in International Conference on Computer Vision (ICCV), Workshop on 3D Representation and Recognition, 2011.

J. Lee, **R. Mottaghi**, C. E. Pippin, and T. Balch. **Graph-based Planning Using Local Information for Unknown Outdoor Environments**, in International Conference on Robotics and Automation (ICRA), 2009.

**R. Mottaghi**, M. Kaess, A. Ranganathan, R. Roberts. **Place Recognition based Fixed-lag Smoothing for Environments with Unreliable GPS**, in International Conference on Robotics and Automation (ICRA), 2008.

**R. Mottaghi** and R. T. Vaughan. **An Integrated Particle Filter and Potential Field Method Applied to Cooperative Multi-Robot Target Tracking**, Autonomous Robots Journal, 23(1): 19-35, 2007.

**R. Mottaghi** and R. T. Vaughan. **An Integrated Particle Filter & Potential Field Method for Cooperative Robot Target Tracking**, in International Conference on Robotics and Automation (ICRA), 2006, Orlando, Florida.

**R. Mottaghi** and S. Payandeh. **An Overview of a Probabilistic Tracker for Multiple Cooperative Tracking Agents**, in International Conference on Advanced Robotics (ICAR), Seattle, USA, 2005.

**R. Mottaghi** and S. Payandeh. **Coordination of Multiple Agents for Probabilistic Object Tracking**, in Canadian Conference on Computer and Robot Vision, Victoria, Canada, 2005.

M. T. Manzuri (in alphabetical order after the first author), H. R. Chitsaz, R. Ghorbani, P. Karimian, A. R. Mirazi, M. Motamed, **R. Mottaghi**, P. Sabzmeydani. **Sharif CESR Small Size Robocup Team** , A. Birk, S. Coradeschi, S. Tadokoro editors, **Robocup 2001: Robot Soccer World Cup V**. Lecture notes in Artificial Intelligence 2377, p. 595, Springer-Verlag, Berlin, 2002.

## Invited Talks

- NeurIPS workshop on Holistic Video Understanding, Dec 2025
- NeurIPS workshop on Vision Language Models: Challenges of Real-World Deployment, Dec 2025
- IROS workshop on Human-aware Embodied AI workshop, Oct 2025

- IROS workshop on AI Meets Autonomy: Vision, Language, and Autonomous Systems workshop, Oct 2025
- ICCV workshop on Human-Robot-Scene Interaction and Collaboration workshop, Oct 2025
- RSS workshop on Generative Modeling Meets Human-Robot Interaction workshop, Jun 2025
- CVPR workshop on 3D-LLM/VLA: Bridging Language, Vision and Action in 3D Environments, Jun 2025
- CVPR workshop on Embodied Humans: Symbiotic Intelligence between Virtual Humans and Humanoid Robots workshop, Jun 2025
- VCR/AI seminars, Simon Fraser University, Apr 2025.
- Princeton Symposium on Safe Deployment of Foundation Models in Robotics, Oct 2024
- CVPR workshop on Virtual Humans for Robotics and Autonomous Driving, Jun 2024
- ICCV workshop on Perception, Decision making and Reasoning through Multimodal Foundational Modeling, Oct 2023
- ICCV workshop on 3D Vision and Modeling Challenges in eCommerce, Oct 2023
- CCVL, Johns Hopkins University, Feb 2023
- CoRL workshop on Benchmarking in Robotic Manipulation, Dec 2022
- CoRL workshop on Learning, Perception, and Abstraction for Long-Horizon Planning, Dec 2022
- Stanford HAI Metaverse Workshop, Apr 2022
- China Society of Image and Graphics (CSIG), Mar 2022
- Unity AI Summit, Nov 2021
- ICCV workshop on Structural and Compositional Learning on 3D Data, Oct 2021
- CVPR workshop on Learning to Generate 3D Shapes and Scenes, Jun 2021
- CVPR workshop on 3D Scene Understanding for Vision, Graphics, and Robotics, Jun 2021
- CVPR workshop on 3D Vision and Robotics, Jun 2021
- Guest Lecturer, Stanford CS331B: Interactive Simulation for Robot Learning, May 2021
- NeurIPS workshop on Visually Grounded Interaction and Language, Dec 2018
- Google AI, Sep 2018
- Facebook, Aug 2018
- Intel Labs, Aug 2018
- Carnegie Mellon University, May 2017

- MIT, May 2017
- Facebook, April 2017
- UC Berkeley, April 2017
- University of Washington, Machine Learning Lunch, February 2017
- AI2, December, 2014
- Yahoo Labs, November 2014
- eBay Research Labs, June 2014
- NEC Labs, April 2014
- University of Michigan, Ann Arbor, Systems Science Seminar, April 2013
- Carnegie Mellon University, VASC seminar, March 2013

## Professional Activities

- Senior Area Chair, CVPR 2026 (lead AC), ACL 2026, ICCV 2025, NAACL 2025, CVPR 2024
- Area Chair, CoRL 2025, ECCV 2024, AAAI 2024, ICLR 2023-2026, NeurIPS 2023-25, CVPR 2020, 2021, 2023, 2025
- Reviewer, CVPR 2015-2019, 2022 (**Outstanding Reviewer Award, CVPR 2017 and 2019**), ICCV 2015-2021, ECCV 2016-2020, NeurIPS 2016-2022 (**Top Reviewer, NeurIPS 2019 and 2022**), ICLR 2018-2022, EMNLP 2017, CORL 2017, ICRA 2017-2018, IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Transactions on Multimedia, IPSN 2009, Mobisys 2009, Autonomous Robots
- Scientific Advisory Board, Embodied AI workshop held at CVPR 2021.
- Co-organizer, Causal and Object-Centric Representations for Robotics held at CVPR 2024
- Co-organizer, Embodied Vision, Actions & Language workshop held at ECCV 2020
- Co-organizer, Embodied AI workshop held at CVPR 2020
- Co-organizer, Workshop on Games and Simulations for Artificial Intelligence held at AAAI 2019
- Co-organizer, Workshop on Visual Understanding Across Modalities held at CVPR 2017

## Interns & Residents

**Residents:**

- Mitchell Wortsman, 2018-2019
  Next Position: PhD Student, University of Washington
- Klemen Kotar, 2020-2022
  Next Position: PhD Student, Stanford University
- Apoorv Khandelwal, 2020-2022
  Next Position: PhD Student, Brown University
- Kunal Singh, 2021-2023
  Next Position: PhD Student, EPFL
- Homanga Bharadhwaj, 2023-2024
  Next Position: Research Scientist, Meta FAIR

**Past Interns:**

- Yuke Zhu, Stanford
- Daniel Gordon, University of Washington
- Kenneth Marino, CMU
- Arun Mallya, UIUC
- Fan Yang, CMU
- Prithvijit Chattopadhyay, Georgia Tech
- Vishvak Murahari, Princeton
- Qian Huang, Cornell
- Samir Gadre, Columbia University
- Kshitij Dwivedi, Goethe University
- Amanda Rose Yuile, UIUC
- Peng Gao, CUHK
- Jialin Wu, UT Austin
- Karl Schmeckpeper, University of Pennsylvania
- So Yeon Tiffany Min, CMU
- Ram Ramrakhya, Georgia Tech
- Cem Gokmen, Stanford

## Media

- **Advancing machine intelligence through human-centered research**, AI at Meta channels on X, Facebook, and YouTube. It was also announced by Mark Zuckerberg, Feb 7, 2025.
- **Advancing embodied AI through progress in touch perception, dexterity, and human-robot interaction**, AI at Meta blog. It was also announced by Mark Zuckerberg and Chris Cox, Oct 31, 2024.

- **Embodied AI spins a pen and helps clean the living room in new research**, *Tech Crunch*, Oct 20, 2023.
- **By Exploring Virtual Worlds, AI Learns in New Ways**, *Quanta Magazine*, Jun 24, 2022.
- **An ever-changing room of Ikea furniture could help AI navigate the world**, *MIT Technology Review*, Feb 12, 2020.
- **AI2 throws down the challenge for robotic scavenger hunt in virtual and real rooms**, *GeekWire*, Feb 11, 2020.
- **Can we build a brain?**, *PBS*, May 16, 2018.
- **Why scientists are teaching AI to think like a dog**, *NBC News*, April 26, 2018.
- **"Dog Cam" Trains Computer Vision Software for Robot Dogs** , *IEEE Spectrum*, April 18, 2018.
- **Researchers teach AI to think like dogs and find out what they know about the world**, *The Verge*, April 14, 2018.
- **Forget cloning dogs, A.I. is the real way to let your pooch live forever**, *Digital Trends*, April 13, 2018.
- **Who's a good AI? Dog-based data creates a canine machine learning system**, *TechCrunch*, April 11, 2018.
- **This AI thinks like a dog**, *MIT Technology Review*, April 11, 2018.
- **The idea of robot butlers fuels our fantasies – and our fears**, *CBC News*, March 9, 2018.
- **Virtual reality training ground helps robots prepare for the real world**, *Digital Trends*, February 19, 2018.
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