

Russell Mendonca

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EDUCATION

Carnegie Mellon University
PhD - Robotics Institute

2020 -

University of California, Berkeley
B.S. in Electrical Engineering and Computer Science, Honors

2016 - 2020

Selected Coursework : Probabilistic Graphical Models, Computer Vision, Convex Optimization, Kinematics Dynamics & Control, Advanced Robotics, Linear Systems Theory, Deep Reinforcement Learning, Machine Learning, Optimal Control

EXPERIENCE

Ph.D. Student, Robotics Institute CMU

2020 -

Advised by Prof. Deepak Pathak

I am interested in robots that continually improve with experience, including by autonomously exploring their environments with minimal supervision, bootstrapping from human videos, and building world models for multi-task learning.

Research Intern, Boston Dynamics AI Institute

2023 Summer

Worked on whole-body reset-free reinforcement learning with Spot robots directly in the real world.

Undergraduate Researcher, Berkeley Artificial Intelligence Research

2017 - 2020

Advised by Prof. Sergey Levine

Worked on multi-task and meta-reinforcement learning for continuous control.

PUBLICATIONS

Continuously Improving Mobile Manipulation with Autonomous Real-World RL

Russell Mendonca, Emmanuel Panov, Bernadette Bucher, Jiuguang Wang, Deepak Pathak

In Submission CoRL 2024

Adaptive Mobile Manipulation for Articulated Objects in the Open World

Haoyu Xiong, **Russell Mendonca**, Kenneth Shaw, Deepak Pathak

In Submission CoRL 2024

Bimanual Dexterity for Complex Tasks

Kenneth Shaw*, Yulong Li*, Jiahui Yang, Mohan Kumar Srirama, Ray Liu, Haoyu Xiong,

Russell Mendonca[†], Deepak Pathak[†]

In Submission CoRL 2024

Data-Driven Neural Motion Planning

Murtaza Dalal*, Jiahui Yang*, **Russell Mendonca**, Youssef Khaky

Ruslan Salakhutdinov, Deepak Pathak

In Submission CoRL 2024

Video Diffusion Alignment via Reward Gradients

Mihir Prabhudesai*, **Russell Mendonca***, Zheyang Qin*, Katerina Fragkiadaki, Deepak Pathak

In Submission ECCV 2024

Open x-Embodiment: Robotic learning Datasets and RT-X models.

Padalkar, Abhishek, et al.

International Conference on Robotics and Automation (ICRA) 2024, Best Paper

Structured World Models from Human Videos

Russell Mendonca^{*}, Shikhar Bahl^{*}, Deepak Pathak

Robotics Sciences and Systems (RSS) 2023

Efficient RL via Disentangled Environment and Agent Representations

Kevin Gmelin, Shikhar Bahl, **Russell Mendonca**, Deepak Pathak

International Conference on Machine Learning (ICML) 2023, Oral

Vision-Robotics Bridge: Robot Learning from Visual Affordances

Shikhar Bahl^{*}, **Russell Mendonca**^{*}, Lili Chen, Unnat Jain, Deepak Pathak

Conference on Computer Vision and Pattern Recognition (CVPR) 2023

Autonomously Exploring Robotic Agents in the Real World

Russell Mendonca, Shikhar Bahl, Deepak Pathak

International Conference on Robotics and Automation (ICRA) 2023

Discovering and Achieving Goals via World Models

Russell Mendonca^{*}, Oleh Rybkin^{*}, Kostas Daniilidis, Danijar Hafner, Deepak Pathak

Neural Information Processing Systems (NeurIPS) 2021

Unsupervised RL & Self-supervised RL workshops at ICML 2021, Oral

Guided Meta-Policy Search

Russell Mendonca, Abhishek Gupta, Rosen Kralev, Pieter Abbeel, Sergey Levine, Chelsea Finn

Neural Information Processing Systems (NeurIPS) 2019, Spotlight talk

Meta Reinforcement Learning of Structured Exploration Strategies

Abhishek Gupta, **Russell Mendonca**, YuXuan Liu, Pieter Abbeel, Sergey Levine

Neural Information Processing Systems (NeurIPS) 2018, Spotlight talk

Meta-Reinforcement Learning Robust to Distributional Shift via

Model Identification and Experience Relabeling

Russell Mendonca^{*}, Xinyang Geng^{*}, Chelsea Finn, Sergey Levine

Inductive biases, invariances and generalization in RL Workshop ICML 2020

Decoupled Meta Learning with Structured Latents

Russell Mendonca, Sergey Levine, Chelsea Finn

Meta-Learning Workshop NeurIPS 2019

HONORS/AWARDS

Finalist, CRA Outstanding Undergraduate Researcher Award	2019
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UC Berkeley EECS Honors Degree	2020
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UC Berkeley College of Engineering Honors to Date	2016 - 2020
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PROFESSIONAL SERVICE

Paper Reviewing :

- Conference on Neural Information Processing Systems (NeurIPS) 2020-24
- International Conference on Machine Learning (ICML) 2021-24
- International Conference on Learning Representations (ICLR) 2021-24
- Conference on Robot Learning (CoRL) 2022-24