Ashwin Balakrishna

Email: abalakrishna@gmail.com, Website, Google Scholar

BACKGROUND I am excited about algorithms for data-driven decision-making. I am particularly interested in bridging vision and language foundation models with decision-making algorithms which can actively interact with users and improve based on experience.

WORK EXPERIENCE

Google DeepMind, Senior Research Scientist	2024 - Present
Building a robot brain with Gemini	
Toyota Research Institute, Research Scientist	2023 - 2024
Building a robot foundation model	
Nuro, Research Scientist	2022 - 2023
Applying reinforcement learning for motion planning	
Toyota Research Institute, Research Intern	2021
Research in reinforcement learning	
SpaceX, Software Engineering Intern (Avionics)	2017
Power system analysis automation for Falcon 9 rocket	

EDUCATION

UC Berkeley, Berkeley, CA	Aug 2018 - May 2022
Ph.D. in Computer Science	GPA: 3.97/4.00
Thesis: Scalable Supervision for Safe and Efficient Online Robot Learning	
California Institute of Technology, Pasadena, CA	Sep 2014 - Jun 2018
Bachelor of Science in Electrical Engineering	GPA: 3.97/4.00

SELECTED PUBLICATIONS

Moo Jin Kim*, Karl Pertsch*, Siddharth Karamcheti*, Ted Xiao, **Ashwin Balakrishna**, Suraj Nair et al. OpenVLA: An Open-Source Vision-Language-Action Model. *Preprint* 2024.

Alexander Khazatsky*, Karl Pertsch*, Suraj Nair, **Ashwin Balakrishna**, et al. DROID: A Large-Scale In-The-Wild Robot Manipulation Dataset. *Preprint* 2024.

Albert Wilcox, **Ashwin Balakrishna**, Jules Dedieu, Wyame Benslimane, et al. Monte Carlo Augmented Actor-Critic for Sparse Reward Deep Reinforcement Learning from Suboptimal Demonstrations. *Conference on Neural Information Processing Systems (NeurIPS)* 2022.

Brijen Thananjeyan*, **Ashwin Balakrishna***, Suraj Nair, Michael Luo, Krishnan Srinivasan, et al. Recovery RL: Safe Reinforcement Learning with Learned Recovery Zones. *Robotics and Automation Letters (RA-L) and International Conference on Robotics and Automation (ICRA)* 2021.

AWARDS & HONORS

UC Berkeley Outstanding Graduate Student Instructor Award	2022
Qualcomm Innovation Fellowship Finalist	2021
Timothy B. Campbell Innovation Award (Berkeley EECS)	2020-2021
Apple AI/ML PhD Fellowship Nomination (Berkeley EECS)	2020
National Science Foundation Graduate Research Fellowship	2018-2021
Henry Ford II Scholar Award (Top GPA in EE at Caltech)	2017