Ashwin Balakrishna

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BACKGROUND Broadly speaking, I am excited about working on problems that involve data-driven decision making. I am currently a Senior Research Scientist at Nuro working on using ideas from reinforcement and imitation learning for autonomous delivery.

WORK **EXPERIENCE**

Aug 2022 - Present Nuro, Senior Research Scientist (Machine Learning) Toyota Research Institute, Research Intern (Machine Learning) Sep - Dec 2021 SpaceX, Software Engineering Intern (Avionics) Jun - Sep 2017 Intel, Hardware Engineering Intern (Power Electronics) Jun - Sep 2016

EDUCATION

UC Berkeley, Berkeley, CA Ph.D. in Computer Science

Aug 2018 - May 2022

Research: Algorithms for Safe and Efficient Online Robot Learning

Advisor: Ken Goldberg

California Institute of Technology, Pasadena, CA

Sep 2014 - Jun 2018

Bachelor of Science in Electrical Engineering

SELECTED **PUBLICATIONS**

Brijen Thananjeyan*, Ashwin Balakrishna*, Suraj Nair, Michael Luo, Krishnan Srinivasan, Minho Hwang, Joseph E. Gonzalez, Julian Ibarz, Chelsea Finn, Ken Goldberg. Recovery RL: Safe Reinforcement Learning with Learned Recovery Zones. Robotics and Automation Letters (RA-L) and International Conference on Robotics and Automation (ICRA) 2021.

Albert Wilcox, Ashwin Balakrishna, Jules Dedieu, Wyame Benslimane, Daniel S. Brown, Ken Goldberg. 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*, Ugo Rosolia, Felix Li, Rowan McAllister, Joseph E. Gonzalez, Sergey Levine, Francesco Borrelli, Ken Goldberg, Safety Augmented Value Estimation from Demonstrations (SAVED): Safe Deep Model-Based RL for Sparse Cost Robotic Tasks. Robotics and Automation Letters (RA-L) and International Conference on Robotics and Automation (ICRA) 2020.

TEACHING

UC Berkeley, Graduate Student Instructor Jan - May 2022 CS 189: Introduction to Machine Learning UC Berkeley, Graduate Student Instructor Jun - Aug 2021 CS 188: Introduction to Artificial Intelligence Caltech, Undergraduate Teaching Assistant Sep - Dec 2017 EE 111: Signal-Processing Systems and Transforms

AWARDS & **HONORS**

Qualcomm Innovation Fellowship Finalist 2021 Timothy B. Campbell Innovation Award (Berkeley EECS) 2020-2021 National Science Foundation Graduate Research Fellowship 2018-2021 Henry Ford II Scholar Award (Top GPA in EE at Caltech) 2017