Anurag Ajay

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Education Massachusetts Institute of Technology

Ph.D. in Electrical Engineering and Computer Science

MIT Presidential fellowship

University of California, Berkeley

B.S. in Electrical Engineering and Computer Science

Graduated with Highest Honors (top 3%)

Experience

Improbable AI Lab

(Adviser: Pulkit Agarwal)

• Working on learning composable skills for solving long horizon tasks in environments with sparse rewards

Learning and Intelligent Systems Group

September 2017 - September 2019

(Advisers: Leslie Kaelbling and Josh Tenenbaum)

- Worked on leveraging physics engine for dynamics model learning and control
- Worked on curiosity driven exploration for reinforcement learning in environment with sparse rewards

Berkeley Artificial Intelligence Research Lab

October 2014 - May 2017

September 2017 - Present

August 2013 - May 2017

September 2019 - Present

GPA: 5.00/5.00

GPA: 3.95/4.00

(Advisers: Pieter Abbeel and Sergey Levine)

- Worked on deep learning for state estimation
 - Developed model-based sample efficient reinforcement learning algorithm

Publications

Long-Horizon Prediction and Uncertainty Propagation with Residual Point Contact Learners Nima Fazeli, Anurag Ajay, Alberto Rodriguez.

Submitted to the IEEE International Conference on Robotics and Automation (ICRA), Paris, France, May 2020.

Learning to Navigate Endoscopic Capsule Robots

Mehmet Turan, Yasin Almalioglu, Hunter B Gilbert, Faisal Mahmood, Nicholas J Durr, Helder Araujo, Alp Eren Sar, **Anurag Ajay**, Metin Sitti.

Robotics and Automation Letters (RA-L), 2019.

Combining Physical Simulators and Object-Based Networks for Control

Anurag Ajay, Maria Bauza, Jiajun Wu, Nima Fazeli, Joshua B. Tenenbaum, Alberto Rodriguez, Leslie P. Kaelbling.

IEEE International Conference on Robotics and Automation (ICRA), Montreal, Canada, May 2019.

Augmenting Physical Simulators with Stochastic Neural Networks: Case Study of Planar Pushing and Bouncing

Anurag Ajay, Jiajun Wu, Nima Fazeli, Maria Bauza, Leslie P. Kaelbling, Joshua B. Tenenbaum, Alberto Rodriguez.

IEEE International Conference on Intelligent Robots and Systems (IROS), Madrid, Spain, October 2018. Best Paper for Cognitive Robotics

Reset-Free Guided Policy Search: Efficient Deep Reinforcement Learning with Stochastic Initial States

Anurag Ajay*, William Montgomery*, Chelsea Finn, Pieter Abbeel, Sergey Levine. IEEE International Conference on Robotics and Automation (ICRA), Singapore, May 2017.

Backprop KF: Learning Discriminative Deterministic State Estimators

Tuomas Haarnoja, Anurag Ajay, Sergey Levine, Pieter Abbeel.

Neural Information Processing Systems (NIPS), Barcelona, Spain, December 2016.

Technical Skills

Python, Matlab, ROS, Theno, Caffe, Tensorflow, Pytorch, Spark, Java