Anurag Ajay

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Education	**Massachusetts Institute of Technology**	September 2017 - Present
	Ph.D. in Electrical Engineering and Computer Science	GPA: 5.00/5.00
	MIT Presidential fellowship	

University of California, Berkeley — August 2013 - May 2017
B.S. in Electrical Engineering and Computer Science — GPA: 3.95/4.00
Graduated with Highest Honors (top 3%)

Experience

Improbable AI Lab — September 2019 - Present
(Adviser: Pulkit Agarwal)
- Working on learning visuomotor priors for solving long horizon tasks in environments with sparse rewards
- Working on learning features for out of distribution visual transfer for supervised learning and reinforcement learning

Google Brain Research Internship — June 2020 - August 2020
(Advisers: Ofir Nachum and Sergey Levine)
- Worked on leveraging (unlabelled) offline data to extract skills which allows for improved offline reinforcement learning, online reinforcement learning and few-shot imitation learning.

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

Madry Lab (with Aleksander Madry) — March 2019 - September 2019
- Worked towards understanding the fundamentals of deep learning and on designing adversarially robust deep learning models.
- Worked on robust style transfer for images and videos

Berkeley Artificial Intelligence Research Lab — October 2014 - May 2017
(Advisers: Pieter Abbeel and Sergey Levine)
- Worked on deep learning for state estimation
- Developed model-based sample efficient reinforcement learning algorithm

Publications

OPAL: Offline Primitive Discovery for Accelerating Offline Reinforcement Learning
Anurag Ajay, Aviral Kumar, Pulkit Agrawal, Sergey Levine, Ofir Nachum.
International Conference on Learning Representations (ICLR), Vienna, Austria, May 2021.

Learning Action Priors for Visuomotor transfer
Anurag Ajay, Pulkit Agrawal.
ICML Inductive biases, invariances and generalization in RL workshop, July 2020.

Long-Horizon Prediction and Uncertainty Propagation with Residual Point Contact Learners
Nima Fazeli, **Anurag Ajay**, Alberto Rodriguez.
IEEE International Conference on Robotics and Automation (ICRA), Paris, France, May 2020.

Learning Skill Hierarchies from Predicate Descriptions and Self-Supervision
Tom Silver*, Rohan Chitnis*, **Anurag Ajay**, Josh Tenenbaum, Leslie Pack Kaelbling.
AAAI Workshop on Generalization in Planning (GenPlan), 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, Caffe, Tensorflow, Pytorch, Spark, Java