

Rohan Chitnis

ronuchit@mit.edu | www.rohanchitnis.com | https://github.com/ronuchit

Education	<p>Massachusetts Institute of Technology, Cambridge, MA Doctor of Philosophy in Electrical Engineering and Computer Science, May 2021 (expected). Master of Science in Electrical Engineering and Computer Science, May 2018.</p> <p>University of California, Berkeley, Berkeley, CA Graduated with Highest Honors (GPA in top 3%). GPA: 3.951 / 4.0. Bachelor of Science in Electrical Engineering and Computer Sciences, May 2016.</p>
Experience	<p>MIT Learning & Intelligent Sys. Lab (Adviser: Leslie Kaelbling) 09/2016 - Present</p> <ul style="list-style-type: none">• Conduct research in artificial intelligence for robotics, toward a PhD.• Focus on inference, planning, and learning for human-robot interactive settings. <p>Google Brain, Robotics (Research Intern, Adviser: Sergey Levine) 05/2017 - 09/2017</p> <ul style="list-style-type: none">• Researched methods for speeding up deep reinforcement learning for robotics, by regressing on event outcomes to improve exploration.• Designed and implemented a standalone framework for robotic learning that separates the environment, learning algorithms, and underlying TensorFlow models. <p>Airbnb Inc., Search Ranking (Software Engineering Intern) 06/2016 - 08/2016</p> <ul style="list-style-type: none">• Worked on incorporating mobile data into machine learning models used by the Search Ranking team. Collected and organized data using tools in Hive, Presto, and Scala. <p>UC Berkeley Robot Learning Lab (Adviser: Pieter Abbeel) 02/2013 - 05/2016</p> <ul style="list-style-type: none">• Performed work in (hierarchical) combined task and motion planning for execution of long-horizon robotic tasks such as laundry.• Integrated reinforcement learning to improve existing approaches.• Lead coordinator of lab outreach program, providing tours to visitors of varied ages. <p>eBay Inc., Checkout (Software Engineering Intern) 05/2014 - 08/2014</p> <ul style="list-style-type: none">• Developed an end-to-end pipeline to create a model that classifies checkout transactions.• Collected data using Hadoop MapReduce under the Apache Pig framework.
Selected Publications	<p>Integrating Human-Provided Information Into Belief State Representation Using Dynamic Factorization. Rohan Chitnis, Leslie Pack Kaelbling, Tomás Lozano-Pérez. Int'l Conference on Intelligent Robots and Systems (IROS), 2018.</p> <p>Finding Frequent Entities in Continuous Data. Ferran Alet, Rohan Chitnis, Leslie Pack Kaelbling, Tomás Lozano-Pérez. Int'l Joint Conference on Artificial Intelligence (IJCAI), 2018.</p> <p>Guided Search for Task and Motion Plans Using Learned Heuristics. Rohan Chitnis, Dylan Hadfield-Menell, Abhishek Gupta, Siddharth Srivastava, Edward Groshev, Christopher Lin, Pieter Abbeel. Int'l Conference on Robotics and Automation (ICRA), 2016.</p> <p>Variable-Length Word Encodings for Neural Translation Models. Rohan Chitnis, John DeNero. Conference on Empirical Methods in Natural Language Processing (EMNLP), 2015.</p>
Honors / Awards	<p>NSF GRFP Fellow, 2016. Awarded NDSEG Fellowship (declined).</p> <p>Hertz Fellowship Finalist, 2016. One of 40 finalists nationwide.</p> <p>Runner-up for the CRA Outstanding Undergraduate Researcher Award, 2016.</p> <p>Sole recipient of the EECS Mark D. Weiser Excellence in Computing Scholarship, 2015.</p> <p>Member of the EECS Honors Degree Program.</p> <p>UC Berkeley Outstanding Graduate Student Instructor (OGSI) Award recipient, 2015.</p> <p>UC Berkeley Regents' and Chancellor's Scholar.</p> <p>National Merit Scholar.</p>
Technical Skills	<p>Fluency in: Python, Java, Scala, C, C++, LaTeX.</p> <p>Software: PyTorch, TensorFlow, Theano, Unix/Linux, Robot Operating System (ROS), OpenCV, Apache Pig, Apache Spark, Hadoop MapReduce.</p>