Rohan Chitnis

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Education

Massachusetts Institute of Technology, Cambridge, MA
GPA: 4.9 / 5.0. Minor: Econometrics.
Doctor of Philosophy in Electrical Engineering and Computer Science, May 2021 (expected).
Master of Science in Electrical Engineering and Computer Science, May 2018.

University of California, Berkeley, Berkeley, CA
Graduated with Highest Honors (GPA in top 3%). GPA: 3.95 / 4.0.
Bachelor of Science in Electrical Engineering and Computer Sciences, May 2016.

Experience

MIT Learning & Intelligent Sys. Lab (Adviser: Leslie Kaelbling) 09/2016 - Present
- Conduct research in artificial intelligence for robotics, toward a PhD.
- Focus on inference, planning, and learning for human-robot interactive settings.

Google Brain, Robotics (Research Intern, Adviser: Sergey Levine) 05/2017 - 09/2017
- 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.

Airbnb Inc., Search Ranking (Software Engineering Intern) 06/2016 - 08/2016
- 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.

UC Berkeley Robot Learning Lab (Adviser: Pieter Abbeel) 02/2013 - 05/2016
- 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.

eBay Inc., Checkout (Software Engineering Intern) 05/2014 - 08/2014
- 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

Learning Quickly to Plan Quickly Using Modular Meta-Learning. **Rohan Chitnis**, Leslie Pack Kaelbling, Tomás Lozano-Pérez. 2019 Int'l Conference on Robotics and Automation (ICRA).

Learning What Information to Give in Partially Observed Domains. **Rohan Chitnis**, Leslie Pack Kaelbling, Tomás Lozano-Pérez. 2018 Conference on Robot Learning (CoRL).

Finding Frequent Entities in Continuous Data. Ferran Alet, **Rohan Chitnis**, Leslie Pack Kaelbling, Tomás Lozano-Pérez. 2018 Joint Conference on Artificial Intelligence (IJCAI).

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. 2016 Int'l Conference on Robotics and Automation (ICRA).

Variable-Length Word Encodings for Neural Translation Models. **Rohan Chitnis**, John DeNero. 2015 Conference on Empirical Methods in Natural Language Processing (EMNLP).

Honors / Awards

NSF GRFP Fellow, 2016. Awarded NDSEG Fellowship (declined).
Hertz Fellowship Finalist, 2016. One of 40 finalists nationwide.
Runner-up for the CRA Outstanding Undergraduate Researcher Award, 2016.
Sole recipient of the EECS Mark D. Weiser Excellence in Computing Scholarship, 2015.
Member of the EECS Honors Degree Program.
UC Berkeley Outstanding Graduate Student Instructor (OGSI) Award recipient, 2015.
UC Berkeley Regents' and Chancellor's Scholar.
National Merit Scholar.

Technical Skills

Languages: Python, Java, Scala, C, C++, LaTeX.
Software: PyTorch, TensorFlow, Theano, Unix/Linux, Robot Operating System (ROS), OpenCV, Apache Pig, Apache Spark, Hadoop MapReduce.