Rohan Chitnis

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Education

Massachusetts Institute of Technology, Cambridge, MA
MS/PhD in Computer Science, May 2021 (expected).
Learning and Intelligent Systems Lab, MIT CSAIL.

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.

Experience

Google Brain Robotics (Research Intern, Adviser: Sergey Levine) 05/2017 - 09/2017
- Researched methods for speeding up deep reinforcement learning for robotics, using human-provided feedback through natural language.
- Designed and implemented a standalone framework for robotic learning that separates the environment, learning algorithms, and underlying TensorFlow models.

Airbnb Inc., San Francisco, CA (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.

UC Berkeley Oscii Lab (Adviser: John DeNero) 04/2015 - 05/2016
- Conducted research in Natural Language Processing.
- Improved performance of neural machine translation using Huffman code compression.

eBay Inc., San Jose, CA (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

Guided Search for Task and Motion Plans Using Learned Heuristics. **Rohan Chitnis**, Dylan Hadfield-Menell, Abhishek Gupta, Siddharth Srivastava, Pieter Abbeel. IEEE Conference on Robotics and Automation (ICRA), 2016.

Learning an Interface to Improve Efficiency in Combined Task and Motion Planning. **Rohan Chitnis**, Dylan Hadfield-Menell, Siddharth Srivastava, Abhishek Gupta, Pieter Abbeel. IROS Workshop on Machine Learning in Planning and Control of Robot Motion (MLPC), 2015.

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

Combined Task and Motion Planning Through an Extensible Planner-Independent Interface Layer. Siddharth Srivastava, Eugene Fang, Lorenzo Riano, **Rohan Chitnis**, Stuart Russell, Pieter Abbeel. IEEE Conference on Robotics and Automation (ICRA), 2014.

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

Fluency in: Python, Java, Scala, C, C++, Scheme, LaTeX.
Software: TensorFlow, Theano, Unix/Linux, Robot Operating System (ROS), OpenCV, MongoDB, Apache Pig, Apache Spark, Hadoop MapReduce, scikit-learn, scikit-image.