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Marvin Zhang

Education

University of California, Berkeley (GPA: 4.0)
Computer Science Major & Music Minor, 2012 - 2016 (expected)

Selected Coursework **(**Completed **/** *In Progress***)**

Operating Systems and System Programming (CS 162)
Efficient Algorithms and Intractable Problems (CS 170)
Introduction to Artificial Intelligence (CS 188)
Advanced Robotics (CS 287)
Programming Languages and Compilers (CS 164)
Probability and Random Processes (EE 126)
Introduction to Machine Learning (CS 189)
Deep Reinforcement Learning (CS 294-112)

Research

Research Apprentice, UC Berkeley Robot Learning Lab (January 2014 - present)
Working primarily with Professor Pieter Abbeel and post-doctoral researcher Sergey Levine. Currently involved with several projects focusing on guided policy search, including algorithmic extensions to recurrent neural networks and applications to the domain of tensegrity robots. Previously investigated methods of parallelization for reinforcement learning algorithms.

Software Projects

Guided Policy Search (in progress)
Codebase for guided policy search that is currently being developed by myself and several members of the UC Berkeley RLL. We are hoping to open source this code soon, to allow researchers to have a standardized implementation of guided policy search.

parRL (github.com/zhangmarvin/parRL)
Framework for parallelizing reinforcement learning algorithms. Developed with PhD student John Schulman and Professor Pieter Abbeel in the UC Berkeley RLL.

Teaching

CS 188 Undergraduate Student Instructor, UC Berkeley (Fall 2015)
Currently a Teaching Assistant for CS 188, Introduction to Artificial Intelligence. Duties include teaching sections, holding office hours, and writing and developing course materials.

CS 61A Undergraduate Student Instructor, UC Berkeley (Spring 2014, Fall 2014, Spring 2015)
Formerly a Teaching Assistant for CS 61A, Structure and Interpretation of Computer Programs, for three semesters. CS 61A is the introductory computer science course at UC Berkeley.

Software Projects

Yelp Maps (cs61a.org/proj/maps)
Project written for CS 61A to introduce students to introductory topics in machine learning. Developed with fellow Teaching Assistant Brian Hou and Professor John DeNero.

Publications

Marvin Zhang, Zoe McCarthy, Chelsea Finn, Sergey Levine, Pieter Abbeel.
Learning Deep Neural Network Policies with Continuous Memory States.
Under review at the IEEE International Conference on Robotics and Automation (ICRA), 2016. arXiv 1507.01273.

Industry

Engineering Intern, Prism Skylabs (June - August 2013)
Interned at Prism Skylabs, an SF-based startup working on computer vision and video imagery analysis. Primary project was complete overhaul (backend and frontend) of one of their web apps, the iDashboard. Useful in picking up programming tools and skills including Django, PyCharm, and PostgreSQL.

Awards & Honors

UC Berkeley Letters and Science Dean's Honor List	December 2012 - present
Upsilon Pi Epsilon, Computer Science Honor Society	December 2013 - present
UC Berkeley EECS Honors Degree Program	August 2014 - present
Undergraduate Research Apprentice Program Summer Stipend Award	May 2015 - August 2015