

Vashisht Madhavan

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Education

University of California, Berkeley

M.S. in Electrical Engineering and Computer Science

Computer Vision and Machine Learning - Advisor: Trevor Darrell

GPA: 3.82/4.0

August 2016 - May 2017

University of California, Berkeley

B.S. in Electrical Engineering and Computer Sciences

August 2012 - May 2016

Experience

Uber Technologies Inc.

Research Scientist

- Working on sample-efficient deep reinforcement learning methods for sparse-reward environments
- Facilitating the application of reinforcement learning to numerous Uber services

June 2017 - Present

Berkeley Artificial Intelligence Research Lab

Graduate Student Researcher

- Worked with Berkeley Deep Drive on policy learning and transfer learning methods for autonomous driving
- Focused on unsupervised and semi-supervised transfer learning for object recognition and reinforcement learning

May 2016 - June 2017

SafelyYou

Computer Vision Intern

- Worked on improving care for assisted living using artificial intelligence, specifically fall detection
- Implemented active learning pipeline for updating Fast RCNN object detection modules

January 2017 - June 2017

University of California, Berkeley

Teaching Assistant, CS189: Introduction to Machine Learning

Berkeley, CA

- Oversaw course logistics, ran discussion sections, and contributed to writing homeworks and exams

January 2016 - May 2016

Microsoft

Software Engineering Intern - Windows Devices Group: Quality Insights Team

- Developed machine learning models for failure prediction in the Windows testing framework
- Created pipelines for automatically retraining and deploying models in Azure as new data comes in

May 2015 - August 2015

Relevant Skills

Languages: Python, R, Java, C/C++, C#, Javascript

Computer Vision/Machine Learning: Caffe, Torch, TensorFlow, Spark, Scikit-Learn, OpenCV

General: SQL, Hadoop, Django, AWS, Microsoft Azure

Projects

- **Semi-Supervised Transfer from Synthetic to Real Driving Domains** - applied semi-supervised adversarial learning to transfer deep networks trained on synthetic road scenes to real domains.
- **Best Practices for Fine-Tuning Visual Classifiers to New Domains** - analyzed transfer learning procedures for deep recognition networks among under numerous target domain settings. (ECCV Workshop Paper)
- **Image Generation from Captions Using Dual Loss Generative Adversarial Networks** - applied deep generative networks and LSTMs to generate novel images from provided captions.
- **Predicting NBA Games with Hidden Markov Models** - used autoregressive hidden markov models to predict NBA game outcomes from basic team statistics. Additional supervised methods were used to project future game outcomes.
- **Learning to Color Grayscale Images** - used local image features and color space transformations to train an SVM and infer plausible colors from grayscale image