

VASHISHT MADHAVAN

MACHINE LEARNING AND ARTIFICIAL INTELLIGENCE

☎ 626-673-0337

✉ vashisht.madhavan@berkeley.edu

🏠 vashishtm.net

🌐 <https://www.linkedin.com/in/vashishtmadhavan>

University of California, Berkeley

M.S. ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Computer Vision and Machine Learning - Advised by Trevor Darrell

Berkeley, CA : Aug'16 - May'17

GPA : 3.82 / 4

University of California, Berkeley

B.E. ELECTRICAL ENGINEERING AND COMPUTER SCIENCE

Berkeley, CA : Aug'12 - May'16

Experience

Uber Technologies Inc. Research Scientist

May 2017 - Current

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

Berkeley Artificial Intelligence Research Lab Graduate Student Researcher

May 2016 - May 2017

- Worked with Berkeley Deep Drive on scene understanding methods for autonomous vehicle perception
- Focused on unsupervised and semi-supervised transfer learning from simulated virtual urban environments

SafelyYou Computer Vision Intern

Jan 2017 - May 2017

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

University of California, Berkeley Teaching Assistant: Intro to Machine Learning

Jan 2016 - May 2016

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

Microsoft Corporation Software Engineering Intern

May 2015 - Aug 2015

- Developed machine learning models for failure prediction in the Windows testing framework
- Created pipelines for data ingestion, automatic model updates, and Azure deployment

Research

Improving Exploration in Evolution Strategies for Deep Reinforcement Learning via a Population of Novelty-Seeking Agents

December 2017

- Edoardo Conti*, Vashisht Madhavan*, Felipe Petroski Such, Joel Lehman, Kenneth O. Stanley, Jeff Clune

Deep Neuroevolution: Genetic Algorithms are a Competitive Alternative for Training Deep Neural Networks for Reinforcement Learning

December 2017

- Felipe Petroski Such, Vashisht Madhavan, Edoardo Conti, Joel Lehman, Kenneth O. Stanley, Jeff Clune

Semi-Supervised Transfer from Synthetic to Real Driving Domains

December 2016

- Vashisht Madhavan, Trevor Darrell

Best Practices for Fine-Tuning Visual Classifiers to New Domains

June 2016

- Brian Chu*, Vashisht Madhavan*, Oscar Beijbom, Judy Hoffman, Trevor Darrell
- ECCV 2016 TaskCV Workshop Paper

Projects

Predicting NBA Games with Hidden Markov Models

December 2016

- Autoregressive HMMs to predict NBA game outcomes using basic team-level statistics

Automatic Colorization of Grayscale Images

December 2016

- used local image features to train an SVM and infer plausible colors for grayscale images

Skills

Languages

- Python, R, Java, C/C++, Javascript

Computer Vision/Machine Learning

- Caffe, TensorFlow, Spark, Scikit-Learn, OpenCV

General

- SQL, Hadoop, Django, AWS, Microsoft Azure

Achievements

- 2016 Outstanding Student Instructor Award - Introduction to Machine Learning
- NIPS 2017 Reviewer: Machine Learning for Intelligent Transportation Systems