Wilson Yan

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Education

University of California, Berkeley, B.A. in CS and Applied Math
August 2016 – (Expected) May 2020

GPA: 3.97 / 4.00

Relevant Coursework: Theoretical Statistics (A), Advanced Robotics (A), Machine Learning (A), Artificial Intelligence (A+), Deep Unsupervised Learning (A), Convex Optimization (A)

WORK EXPERIENCE

Undergraduate Research Assistant, Robot Learning Lab (BAIR)   January 2018 – Present
  — Worked on developing novel methods to speed-up big batch reinforcement learning using parameter noise for regional gradient estimates in parameter space
  — Used PPO to create a control policy that optimizes job allocation on chips. Key challenge was to solve a long horizon problem with difficult credit assignment. Experimented with different attention mechanisms and architectures to improve credit assignment
  — Worked on generative modelling and Fisher scores, and deformable object manipulation

Undergraduate Research Assistant, BIDS   September 2016 – December 2017
  — Trained word embedding models and constructed a deep learning CNN in order to classify product descriptions into individual binary cypes (medical, wellness, recreational, etc.). Achieved F-scores from 0.85-0.98 among different categories.
  — Performed graph analysis and spectral clustering in analyzing relationships between producers and consumers

Data Science Intern, Percolata   May 2017 – August 2017
  - Heavily contributed to re-designing the new backend of their application by recreating and reintegrating each of its main components
  - Analyzed the quality of prediction of their machine learning model and identified bottlenecks in their pipeline
  - Redesigned the machine learning pipeline to streamline training and test of new models

PUBLICATIONS

Natural Image Manipulation with Autoregressive Models using Fisher Scores
Wilson Yan*, Jonathan Ho, Pieter Abbeel (preprint)
Learning to Manipulate Deformable Objects without Demonstrations
Yilin Wu*, Wilson Yan*, Thanard Kurutach, Lerrel Pinto, Pieter Abbeel (under review for RSS 2020)
Learning Predictive Representations for Deformable Objects Using Contrastive Estimation
Wilson Yan*, Ashwin Vangipuram, Pieter Abbeel, Lerrel Pinto (under review for IROS 2020)

TEACHING

(Head) Teaching Assistant, CS 188: Introduction to Artificial Intelligence
August 2018 - December 2018, January 2019 - May 2019, August 2019 - December 2019
  - Created and managed projects and coding contests
  - Held office hours and taught a section of 30 students each week
  - Managed a team of 20+ teaching assistants to ensure the course is smoothly run
  - Developed new course content and curriculum to aid students' learning

Co-Head Teaching Assistant, CS 294-158 Deep Unsupervised Learning   January 2020 - Present
  - Managing course logistics, creating and designing homework, and holding office hours