Prateek Malhotra

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EDUCATION

• University of California, Los Angeles

Master of Science in Computer Science; GPA: 4.0/4.0

Los Angeles, CA Sept. 2018 – Mar. 2020

• Pune Institute of Compute Technology

Bachelor of Engineering in Information Technology; GPA: 3.76/4.0

Pune, India July 2014 – July 2018

Programming skills

• Languages: Python, C, C++, MATLAB, Julia, Unix Shell

• Tools: PyTorch, Tensorflow, OpenCV, AWS, Git, Selenium, Docker

EXPERIENCE

• Alectio, Inc.

Santa Clara, CA

Machine Learning Scientist

Apr. 2019 - Present

- Automated Data Labeling: Identification of noisy and redundant data points, unsupervised clustering, and pseudo-labeling to reduce the costs associated with the process of data collection and its subsequent labeling.
- Active Learning: Design and development of an AL framework supporting a variety of SOTA query strategies.
- HOVER, Inc.

San Francisco, CA

June 2019 - Sept. 2019

Computer Vision Engineer Intern

• Scene understanding: Plane R-CNN based deep learning models for surface normal estimation and plane detection. Occlusion detection for complex residential structures using a student-teacher based network.

TEACHING

- Teaching Assistant, UCLA, Spring 2019: SOC 111 Social Networks. Topics: Information dissemination, evolution of social structures, large-scale graph analysis.
- Teaching Assistant, UCLA, Fall 2020: CS 130 Software Engineering. Topics: UML, Design principles, Software testing, Hoare Logic.

PROJECTS

• DeepWatch: White-Box Watchpoint for Deep Neural Networks:

Guided by Prof. Miryung Kim (UCLA CS dept) on neuron-coverage based regularization and analysis for detecting adversarial examples in a set of realistic images.

• Congested Scene Analysis using Dilated Convolutional GANs:

Crowd density and count estimation of a crowded scene by using GANs with dilated convolution kernels. Undergraduate thesis project performed under the guidance of Prof. J.B Jagdale.

• Redistricting using Active Contours:

A new computational redistricting method that uses Chan-Vese active contours and K-Means clustering for drawing district boundaries to prevent gerrymandering.

• Multi-grid Generative Convolutional Neural Networks:

Implemented multiple, correlated deep energy based networks trained on the Celeb-A dataset to generate new photo-realistic images. Performed in the VCLA lab (headed by Prof. Song-Chun Zhu in the CS dept) under the guidance of a PhD student Ruiqi Gao.

ACHIEVEMENTS

- Hack2innovate, Mumbai Edition: Won multiple challenges at an Artificial Intelligence hackathon organised by Samsung, NVIDIA, and the Government of India (NITI Ayog).
- NTT DATA Internship, Tokyo: Selected for a six week IT Management internship from a pool of more than 800 applicants.