PRATEEK MALHOTRA

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EDUCATION (* = *ongoing*)

University of California, Los Angeles *'18 - March '20*
Masters in Computer Science (Current GPA: 4.00 / 4.00)

Pune Institute of Computer Technology (affiliated to SPPU), *Pune, India* *'14 - March '18*
B.E in Information Technology
Aggregate percentage: 78% (GPA: 3.76 / 4.00; 5th among 140 students in the dept.)

TECHNICAL SKILLS

Programming Languages Python, C, C++, Julia, MATLAB
Machine Learning Frameworks PyTorch, Tensorflow, Keras, Scikit-learn

WORK EXPERIENCE (* = *ongoing*)

Alectio Inc, Mountain View: *Machine Learning Scientist* *Mar '20 - **
Autolabeling strategies to use semi-supervised learning methods on object detection and classification problems to reduce overall manual labeling costs

HOVER Inc, San Francisco: *Computer Vision Engineer Intern* *June - Sept '19*
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 trained on the Cityscapes dataset

NTT DATA, Tokyo: *IT Management Intern* *June - Aug '17*
Created a machine learning tool to analyse and predict salesforce data while being a regular member of the quality assurance team and working on standardization of communication flow within the global team

RESEARCH EXPERIENCE

Biomedical Imaging Research Institute, Cedars- Sinai: *Student Researcher* *Sept '18 - Mar '19*
Guided by Prof. Behzad Sharif on image denoising of MRI heart-scans using Generative Adversarial Networks in order to approach a fast approximation of the results obtained using the Block Matching Algorithm.

NOTABLE PROJECTS (* = *ongoing*)

Neuron-coverage based Adversarially Robust Deep Learning *Mar '19 - Mar '20*
Project under Prof. Miryung Kim (UCLA CS dept) on neuron-coverage based regularization and analysis for detecting adversarial examples in a set of realistic images

Multi-grid Generative Convolutional Neural Networks *Sept '18 - Jan '19*
Implemented multiple, correlated deep energy based networks trained on the Celeb-A dataset to generate new photo-realistic images using PyTorch. This project was performed in the VCLA lab (headed by Prof. Song-Chun Zhu in the CS dept) under the guidance of a PhD student Ruiqi Gao

Analysis of Crowded Scenes using Dilated Convolutional GANs *June '17 - Mar '18*
Crowd density and count estimation of a crowded scene by using GANs with dilated convolution kernels to create a density map upon which regression techniques are used to calculate the total number of people. This was my undergraduate thesis project performed under the guidance of Prof. J.B Jagdale

Removing Unintended Bias in Toxicity Classification *Mar - June '19*
Reducing model bias in NLP applications related to gender and identity using BERT coupled with negative gradient branches - achieves a *top 10% kaggle rank* on the private leaderboard.

Fine-grained furniture Image Classification using a Deep Siamese Network *Mar - June '18*
Weakly-supervised, one shot learning approach to classify images into 128 furniture classes using a deep siamese neural network achieves a *top 10% kaggle rank* on the private leaderboard

ACHIEVEMENTS

Hack2innovate, Mumbai Edition: *Winner* *Jan '18*
Won multiple challenges at an Artificial Intelligence hackathon organised by Samsung, NVIDIA, and the Government of India (NITI Ayog).