

# AALISHA DALAL

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## Education

### University of California, Los Angeles

**Master of Science in Computer Science; GPA: 3.88**

Sep 2018 - June 2020

Relevant Coursework: Computer Vision (F. Scalzo & A.Kadambi), Pattern Recognition(S. Zhu), Machine Learning(Q. Gu), Deep Learning, (J.Kao), Convex Optimization (L.Vandenberghe), Natural Language Processing & Web Information Systems (J. Cho)

### Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT), India

**B.Tech in ICT with Hons. in Computational Science; GPA: 3.75**

2014 - 2018

Relevant Coursework: Neural networks, High Performance Computing, Data Structures, Object Oriented Programming

## Technical Skills

**Languages:** Java, Python, C, C#, MATLAB

**Web technologies:** HTML, CSS, REST API

**Platform/Framework:** Pytorch, TensorFlow, CUDA, AWS, Spark

**Data Stores:** ElasticSearch, SQL, Hadoop

## Experience

### Adobe Inc.

San Jose, CA

*Machine Learning Engineer*

July 2020 - Present

- Carried out user-behavioral studies for search and recommendation use cases for Creative Cloud (CC) Products.
- Created data pipelines using Hadoop, AWS, and Spark to analyse billions of user assets for training ML models.
- Organised ML Reading Group and conducted discussions on cutting-edge research work in ML, CV and NLP.
- Received “Most Likely to Be Neural Filter” Award for “AI-Based Old Photos Restoration Service” in Hackathon.

### Adobe Inc.

San Jose, CA

*Machine Learning Applied Search Intern*

June 2019 - Sep 2019

- Generated personalised search keyword recommendation queries based on user photos in Adobe Lightroom.
- Automated categorisation of user photos in albums using an unsupervised embedded topic modelling approach.

### Morgan Stanley Advantages Services Pvt. Ltd.

Mumbai, India

*Technology Analyst Intern*

May - July 2017

- Developed a multi-threaded Java-Spring application to monitor functionalities of different trading products.
- Created dashboard visualisations for targeting failure events of these functionalities in real-time.

### University of California Los Angeles (Graduate Student Researcher)

Sep 2019 - June 2020

- **Computational Machine Learning Lab:** Created a framework to generate adversarial examples that can fool any kind of object detection models using black-box query limited Sign-OPT attack under the guidance of Prof. Hsieh.
- **UCLA Vision Lab:** Created models inspired from Siamese Network with deep cross correlation and attentional features for video instance segmentation under the guidance of PhD student Xinzhu Bei and Prof. Stefano Soatto

### University of California Los Angeles (Graduate Teaching Assistant)

Jan 2019 - Mar 2020

- Conducted discussions to review lectures and labs to teach practice problems, held office hours for solving queries.

## Selected Projects

- **Automated Colorisation of Grayscale Images:** Implemented a CNN encoder-decoder architecture and GAN model having U-Net as the generator and CNN as the discriminator for colorisation of grayscale images.
- **Human Face detection using Boosting:** Implemented Viola Jones' Adaboost and RealBoost method for face detection. Used non-maximum suppression and hard negative mining to reduce false-positive detections.
- **Image Analysis of Human Faces and Gender-based Classification:** Implemented PCA and auto-encoder CNN model on human faces and used them to reconstruct human faces with appearance and geometry variations. Carried out gender-based classification with Fisher faces using FLD technique.
- **Neural-based System for Question-Answering on SQUAD 2.0:** Worked on a Bidirectional Attention flow model using word embeddings - GloVe, Fast-text and BERT for predicting answers to questions from paragraphs.
- **Hashtag Recommendation for Twitter tweets:** Developed a model for recommending hashtags for user tweets. It is trained on the real-time Twitter feed and is built using word2vec embeddings and clustering approaches.
- **Parkinson's disease prediction:** Implemented MLP and RBF neural network models with meta-cognitive component for predicting Parkinson's disease among patients based on their vocal and gait features.