

AALISHA DALAL

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Education

University of California, Los Angeles

Master of Science in Computer Science; GPA: 3.88

2018 - 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, Keras, OpenCV, CUDA

Data Stores: ElasticSearch, SQL, IBM Db2

Experience

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.

InFoCusp Innovations Pvt. Ltd.

Ahmedabad, India

Machine Learning Intern

Jan - May 2018

- Worked on pre-processing and financial modelling of stock market feed to create a profitable stock market strategy.
- Analysed wiki-statistical data of listed companies to find event indicators which reflect changes in stock prices.

University of California Los Angeles

Sep 2019 - Present

Graduate Student Researcher

- Generating adversarial examples for object detection by using transfer learning to attack the fasterRCNN model based on state-of-the-art adversarial attack for classification problems under the guidance of Prof. Hsieh.
- Working in Vision lab on creating models inspired from SiamMask to improve video instance segmentation on Youtube-VOS and DAVIS datasets under the guidance of PhD student Xinzhu Bei and Prof. Stefano Soatto

University of California Los Angeles

Jan 2019 - Present

Graduate Teaching Assistant for Computer Organisation, Introduction to CS and Mathematics for Life Scientists

- 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.