Anjali Anil Shenoy

B. Tech CSE with Hons. in Computer Vision

International Institute of Information Technology

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Education

Year	Degree/Certificate	Institute	CGPA/Percentage
2018	B.Tech.	IIIT, Hyderabad	9.0/10
2014	AISSCE, XII (CBSE)	Abu Dhabi Indian School, Abu Dhabi	97.2%
2012	AISSE, X (CBSE)	Abu Dhabi Indian School, Abu Dhabi	10.0/10.0

Experience

Project Assistant *June'18 - ongoing*

Machine and Language Learning Lab, Indian Institute of Science, Bangalore

- Building a life long learning algorithm for retrieval of multimodal information related to an image, envisioned in the principles of a 'Memex'
- Guided by Dr. Anand Mishra and Dr. Partha Talukdar, this work will be targeted for ICCV'19.

Research Intern *June'17 - July'17*

Soroco Automation

- Worked on the object detection, localization and segmentation aspect of videos for a **patent-pending project** to automate procedural jobs across the software enterprise.

Publications

MKL based Local label diffusion for Automatic Image Annotation

*Authors: Abhijeet Kumar, **Anjali Anil Shenoy** and Avinash Sharma*

- **Accepted** at the **IEEE National Conference on Vision, Pattern Recognition, Image Processing and Graphics (2017)**
- Contributed to developing a method to automatically annotate images which used NN approaches to construct neighborhoods of images in visual feature space and learned multiple heat kernels to diffuse labels from neighbors into corresponding unannotated image.

Major Projects

Extractive Text Summarisation *November'17*

Natural Language Processing

- Implemented different models of extractive text summarisation on Amazon Fine Food reviews dataset such as TextRank, LexRank, and Centroid Summarisation. Implemented our own technique called "Rake Rank" which uses RApid Keyword Extraction algorithm to boost the diversity of extracted summary.

Semantic aware sky replacement in images *November '16*

Digital Image Processing

- Used Fully Convolutional Neural Network with graph-cut energy based minimization to obtain nearly **80%** boundary accuracy on segmentation of sky region in images.
- Obtained Histogram descriptors of images to find semantically similar images, transferred the sky region into test image, and implemented color transfer on non-sky region to modify the mood according to the transferred sky.

Restaurant revenue prediction using mathematical modeling *September '16*

Statistical Methods in AI

- Worked on a skewed data-set of 100,000 restaurant information samples to predict revenue generated. Implemented classifiers such as random forest and ridge, using it with an ensemble of SVM and Lasso to achieve **Kaggle rank 10.**

Image Annotation using Knowledge Graphs *Aug '17 - May'18*

Thesis. Mentor: Dr. Avinash Sharma

- Extended our publication to incorporate label dependency knowledge graphs using Graph Convolutional Network to further enrich annotations, modeling our understanding of label transfer via convolution operations on label dependency.

Deep Word Embeddings *February '18*

Information Retrieval
- Adding multilingual context when learning word embeddings can improve their quality. Implemented a method for deep non-linear transformations of word embeddings of two languages, using deep canonical correlation analysis.

Sleepy Face Driver Detection for Road Safety *January '17*

Microsoft Code.Fun.Do
- Developed an algorithm in openCV to predict if a car driver is drowsy based on eye pupil dilation and yawning facial expression, accordingly raising an alarm to alert them. Used a small infrared camera placed on the windshield which tracks eye and facial movements of driver with more than **70%** accuracy.

Deux-Lingo *December '17*

Microsoft GAINS AI Hackathon
- Implemented a Machine Translation technique for French to English using Translation Matrices and BOW modeling.
- Finalists (**top 20**) among 100 teams, received special mention.

Relevant Courses

Artificial Intelligence
Computer Networks
Computer Vision
Database Systems
Distributed Systems
Linear Algebra
Machine Learning

Natural Language Processing
Operating Systems
Optimization Methods
Principles of Information Security
Statistical Methods in Artificial Intelligence
Topics in Information Retrieval

Computer Skills

Languages (Proficient in): C, C++, Python, Matlab, SQL
Languages (Familiar with): C#, Javascript, Java, PHP
Other Tools/Languages: LaTeX, openCV, HTML, CSS, Bash Shell Scripting
Machine Learning Frameworks: TensorFlow, Pytorch, Keras

Achievements

- **Best All Rounder Award** for the outgoing batch of 2018 for outstanding achievements in academics, research, sports, leadership, and cultural activities.
- Received **Academic Excellence Award** (The Dean's List) consecutively for 3 years in a row- 2015-16, 2016-17, 2017-18
- Runner up (Singles, Mixed Doubles)- **Play-For-Pink: Corporate Badminton Tournament, Hyderabad 2016**. Winner (Mixed Doubles) **State Level Badminton Tournament, VJIT, Hyderabad 2017**
- Position of responsibility - **Sports Council (Vice Captain), Hostel Committee (member), Academic Disciplinary Committee (member)**
- Received **Scholarship** from CBSE for being in the top **99.9th percentile** in CBSE Board exam among 1,000,000 students.