Anjali Anil Shenoy

B. Tech CSE with Hons. in Computer Vision
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Education

Year	Degree/Certificate	Institute	CGPA/Percentage
2018	B.Tech.	IIIT, Hyderabad	9.0/10.0
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

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)**
- Developed a method to automatically annotate images based on feature-space similarity. Used NN approaches to construct neighborhoods of images and learnt multiple heat kernels to diffuse labels from neighbors into corresponding unannotated image.

Experience

Research Assistant *June'18 - ongoing*
Machine and Language Learning Lab, Indian Institute of Science, Bangalore

- Currently working on the task of never-ending learning of named image scenes using world-knowledge which is represented as a structured graph and mined from news articles.
- Guided by Dr. Anand Mishra and Dr. Partha Talukdar, this work will be targeted for CVPR'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.

Achievements

- **Best All Rounder Award** for the outgoing batch of 2018 for outstanding achievements in academics, research, sports, leadership, and cultural activities.
- Received **Dean's Academic Excellence Award** (top 5%) consecutively for 3 years (2015-2018)
- Received **CBSE Scholarship** for being in the top **99.9th percentile** in CBSE Board exam among 1,000,000 students.

Other Major Projects

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, achieving 2% increase in accuracy on MSCOCO and Visual Genome datasets.

Semantic aware sky replacement in images *November '16*
Digital Image Processing

- Used Fully Convolutional Neural Network with graph-cut energy based minimization to obtain **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.**

Short Term Projects

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.

AI-bot: Ultimate Tic Tac Toe *February'16*
Artificial Intelligence

- Intelligent Bot that returns the best possible move in a revised game of Ultimate Tic Tac Toe using MiniMax search with Alpha Beta pruning.

Wikipedia Notability Determination for Scientific Algorithms *Aug'17-Jan'18*
Data Science

- Explored methods to quantify notability of scientific algorithms to deserve its own Wikipedia page, primarily using citation graphs of research articles and observing information flow across scientific publications.

Relevant Courses

Artificial Intelligence
Computer Networks
Computer Vision
Database Systems
Digital Image processing
Digital Signal Analysis & Applications
Distributed Systems
Linear Algebra
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
Machine Learning Frameworks: TensorFlow, Pytorch, Keras
Languages (Familiar with): C#, Javascript, Java, PHP
Other Tools/Languages: LaTeX, openCV, scikit-learn, HTML, CSS, Bash Shell Scripting

Others

- 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)**