Tejaswi Kasarla

tkasarla.github.io
github: tkasarla
linkedin: tejaswikasarla
kasarla.tejaswi@research.iiit.ac.in

Courses

- Digital Image Processing
- Statistical Methods in Artificial Intelligence
- Computer Vision
- Optimization Methods
- Topics in Machine Learning

Skills

Languages: Python, Shell Scripting, MATLAB, HTML/CSS,

Libraries: PyTorch, Keras, Caffe, LaTeX, OpenCV,

Positions Held

Contributor & DRI, *2017-18*
Stanford Scholar Initiative

Member, *2017-18*
LeanIn, IIIT Hyderabad

Content Writer, *2017*
TEDxHyderabad

Organizing Team, *2016*
Summer School on Deep Learning for Computer Vision

Team Lead, *2015*
MIT Media Lab India Initiative

References

Prof. C.V. Jawahar
IIIT-Hyderabad

Dr. Vineeth Balasubramanian
IIT Hyderabad

Dr. Guruprasad Hegde
Bosch India

Education

MS (by Research) in Computer Science — August 2016 - Present
International Institute of Information Technology, Hyderabad — *CGPA: 7.17/10*

B.Tech in Electrical and Electronics Engineering — 2011 - 2015
JNTU Hyderabad — *CGPA: 80.48%*

Publications

[1] **Tejaswi Kasarla,** G Nagendar, Guruprasad Hegde, Vineeth N. Balasubramanian, C.V. Jawahar, "Region-Based Active Learning for Efficient Labelling in Semantic Segmentation", *IEEE Winter Conference on Applications of Computer Vision (WACV) 2019.*

Experience

Research Assistant
CVIT, IIIT Hyderabad
August 2016 - Present

Intern
CVIT, IIIT Hyderabad
March 2016 - June 2016

Research Intern
Research and Technology Centre, Bosch
June 2018 - October 2018

Research Fellow
LVPEI Center for Innovation
August 2015 - January 2016

Research Projects

Active Learning for Semantic Segmentation, IIIT Hyderabad — Jan 2017-Present
Prof. C.V. Jawahar, Dr. Vineeth N. Balasubramaninan

- Developed extensive semi-supervised active learning algorithms for intelligently selecting data-points for annotation. This facilitates to achieve $\sim$ 90-95% accuracies of fully supervised method without the need for annotating the whole dataset.
- Research based on the work accepted to WACV 2019.

Intelligent Image Matching, IIIT Hyderabad — Monsoon '16
Prof. C.V. Jawahar, Dr. Anand Mishra

- Developed an intelligent image matching and registration algorithm to find the errors and differences in 3D CAD models.
- Formulated a dataset of the images sent by Altair Engineering India Pvt. Ltd.

Unsupervised Sketch Simplification for SBIR, IIIT Hyderabad — Monsoon '16
Dr. Vineeth Gandhi

- Developed an unsupervised method of sketch simplification to retrieve images from sketch input my humans.
- Formulated a function based on Fourier descriptors for simplification of sketch drawn by humans. Trained an autoencoder network on TU-BERLIN dataset and used the bottle-neck representation to show sketch based image retrieval (SBIR) on Caltech-256 datset.

Pediatric Perimeter, LVPEI Center for Innovation — Aug 2015-Jan 2016
Dr. Premnandini Satgunam, Dhruv Joshi

- Developed software to test and record the results of the expirement on infants.
- Implemented the analysis of the data obtained to quantify the visual fields and reaction time using a visual fiducial system algorithm based on near-optimal lexicographic coding system.

Other Select Projects, IIIT Hyderabad

Read and implemented the following papers for course project or personal projects.

- 'Supervised Learning of Gaussian Mixture Models for Visual Vocabulary Generation' for SMAI course project, Monsoon '16.
- 'Constrained Policy Optimization for TiML course project, Monsoon '17
- 'Deep Retinal Image Understanding' on sample data from LVPEI Center for Innovation.