Sairam Tabibu
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EXPERIENCE

Research Intern (Nov '17-Present) **Prof. C.V. Jawahar** (IIIT, Hyderabad)
Integrative Analysis of Histopathological Images and Genomic Data of Kidney Carcinoma
Investigating Methods for integrating the Image features from the cancer slide images and the genomic information from the clinical data available in detecting the cancer type and its aggressiveness which are the key features in determining the nature of the treatment.

Technical Intern (June '17-August '17) **Prof. Mubassir Kapadia** (Rutgers,new Brunswick, NJ, USA)
Crowd simulation
(Remote Assistance) Worked on crowd simulations investigating the variety of social forces and various optimizations which comes into play while trying to imitate a real time situation using the SteerSuite framework.

Research Intern (May '16-July '16) **Prof. Deepu Rajan** (NTU, Singapore)
Infrared image/video processing in the Maritime environment
Detect and track ships, boats, frigates using IR cameras along the Singapore coastline with every possible variation in orientation,shape, distance and surrounding effects. Selective search using graph methods and combining them on the basis of several similarity measures such as color shape to get probable Bounding boxes. CNN used to extract features and SVM's to classify them .

Research Intern (May '15-Jul '15) **Prof. Oh-Seol Kwon** (Changwon National University, South Korea)
Real-Time Illumination Invariant Face Recognition Using Higher Order Local Discrete Patterns
Improving and implementation of Real time face recognition algorithm on Embedded systems such as Raspberry Pi to be deployed as a low cost product. Illumination invariance brought by introducing CLAHE and MLBOHE with minimal processing and significant accuracy improvement.

Research Intern (May '14-July '14) **Dr. N. S. Rajput** (IIT BHU, Varanasi)
Interfacing of Sensors with general purpose single-board computers for automated capture of Ambient Parameters using Apache Hadoop Framework:. Worked on sensor interfacing various sensors suitable for capturing pollution levels in river Ganga by creating an Ad Hoc network of sensor nodes .

RESEARCH PAPER

1. Accepted, Sentire Workshop, ICDM '16 titled "The Truth and Nothing but The Truth: Multi-modal Deception Detection"
2. Accepted as short paper in FLAIRS '17 on "Hang in there: Lexical and visual analysis to identify posts warranting empathetic responses"

PROJECTS

Human Motion Recognition using Zernike moments and optical flow features under supervision of **Dr. Rajeev Shrivastava :** Extracted foreground as a Silhouette using Gaussian modelling and Zernike moments as shape featureDTW and NN classifier to classify them.
Contrast Based Dehazing of Hazy images, a project using a simple formulation derived from lightness predictor, to restore lost discontinuities only in regions that insufficiently represent original chromatic contrast of the scene.

Real time digit recognition : Tracking color markers present on finger tips and trained a classifier using Neural Networks to extract features and classify the shape to recognise the digit being described in front of the camera.

Hand gesture Recognition : Designed a system for scientific calculator which recognised hand gesture and classified and resembled them into numbers and mathematical functions. Used morphological functions to detect the hand color and 4 layer Neural Networks to classify them

EDUCATION

Bachelor of Technology (2013-2017[expected])
Institution: Indian Institute of Technology, (BHU) Major: **Electronics Engineering**
Grade: CGPA 7.65 (3.6/4.0)

All India Senior Secondary School Certificate Examination
Institution: Prestige Public School, Indore Grade: 84.8%

All India Secondary School Certificate Examination
Institution: Atomic Energy Central School, Indore Grade: 9.8 (Top 0.1% merit)

ACADEMIC ACHIEVEMENTS

KVPY (Kishore Vaigyanik Protsahan Yogna) scholar with AIR 300 (**99.97 percentile**).

Qualified **JEE ADVANCED 2013** with All India Rank **2306 (99.92 percentile)** among **1000000** prerequisite to join Indian Institute of Technology..

Stood within top **1% at state level** in **National Standard Examination in Physics** (2012), **National Standard Examination in Junior Science** (2009) conducted by IAPT.

All India Rank 49 in National Science Olympiad and some under three digit ranks in International Mathematics Olympiad conducted by SOF.

CERTIFICATIONS

Machine Learning, Stanford University, by Andrew Ng, Coursera
Algorithms: Design and Analysis Part 1 & 2, Stanford University, by Tim Roughgarden,Coursera
Computer vision, UC Berkeley, by Jitendra Malik
deeplearning.ai (3/3 courses) Andrew Ng, Stanford University

OTHER

GRE: 169 (Quant), 150 (Verbal), **4.0** (AWA) **TOEFL:** 30(Reading) + 26(Speaking) + 24(Listening) + 24(Writing) [104/120]

Proficient in C++, python , Latex, Matlab

AREAS OF INTEREST

Computer Vision, Pattern Recognition, Image Processing, Machine Learning, Human Computer Interaction.