ADITHYA NARAYAN BADANIDIYOOR

Email: **raoadi.8@gmail.com**   ph: +918884275321

Website: https://badirao.github.io/

EDUCATION :

Ramaiah Institute of Technology, Bangalore, India   August 2016 – Present

Bachelor of Engineering, Information Science

SKILLS AND TECHNOLOGIES:

Python(Keras,OpenCV,NLTK,scikit-learn),Java(JDBC,Swings,JSP),C++(Elementary)

RESEARCH INTERESTS:

Data Science(Feature Engineering), Machine Learning, Deep Learning,Video Analytics,Computer Vision,Healthcare

EXPERIENCE:

Stride.AI(July 2019 - Present):

<u>NLP and Software Development Intern(July 2019 - Present):</u>

- Leveraging and Contributing to ongoing NLP research, specifically in the domains of Information Extraction, Information Localization, and Natural Language Understanding
- Actively involved in Data preprocessing and Data modelling, using NLTK and scikit-learn respectively.

Ramaiah Institute of Technology,Bangalore,India(February 2019- Present):

<u>Undergraduate Research Assistant(February 2019 - Present):</u>

- Benchmarking the performance of various state of the art object detection algorithms like YOLO, R-CNN and SSD as an Encoder for Video Classification. Making use of Keras to build the object detector and sklearn to compare and contrast the classification results obtained by building SVM, Random Forest and Multi Layer Perceptron models. These models were trained using feature vectors that captured probability of a given object being detected by the respective algorithm.

   Domain: Computer Vision,Video Analytics, Feature Engineering, Machine Learning, Deep Learning

Edhitha Unmanned Aerial Systems, Bangalore,India(September 2017 – August 2018):

<u>Software Developer in Computer Vision and Image Processing(August_2018 - August 2018) :</u>

- Used Python and OpenCV libraries to detect and extract ROI from a series of captured images
- Built object detection and classification pipelines to extract objects from captured ROI.
- Used the KNN algorithm to classify various segments of pixels into an alphanumeric. Obtained a validation accuracy of 77%.
- Used the SVM algorithm to classify regions of interest into one of 7 different shapes. Obtained a validation accuracy of 91% using featuring engineering to extract HuMoments and other geometric features.

   Domain: Robotics,Computer Vision

<u>Co-Head of Sponsorship and Funding(September 2017 - August 2018):</u>

- Approached companies and start-ups that would have a chance of providing monetary and technical support in the form of components and discounts. Over half of these companies sponsored an excess of 1000 $.
- Was in charge of the crowdfunding page that built an excess of 1000$ for our teams budget.
- Built connections between the team and other establishments working with UAV's and their applications.

PROJECTS :

Queue Optimization in Patient Centered Radiology using Deep Learning(November 2018- May 2019):

- Using Deep Learning on a Patient's Medical Scans to classify a patient into one of 3 different states(Healthy, Requires Medical Attention, Requires urgent medical attention). Based on the classified state,a Priority is assigned, namely High, Medium and Low respectively. The queue is then viewed in that particular order.
- Used Transfer Learning to train a Deep Convolutional Neural Network to Discriminate between the different types of Scans. Used a Standard Deep CNN to return a Priority given a Scan of a particular type. Obtained a Recall score of 82.5%.
- Regularly coordinated with Subject experts regarding Data Collection and Understanding.
- Visualized the results using Confusion Matrices and ROC-AUC curves.
- Used Keras for Building the Discriminative and Grading Models. Used sklearn and OpenCV to establish ground truths using out of the box feature extractors like HOG, Color Histograms and Hough Moments.

   Domain: Healthcare,Deep Learning,Feature Engineering, Transfer Learning,Computer Vision