BHUMIREDDY VENKATESWARA REDDY

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Data Scientist with 3+ years of experience executing data-driven solutions to increase efficiency, accuracy, and utility of internal data processing. Experienced at creating data regression models, using predictive data modeling, and analyzing data mining algorithms to deliver insights and implement action-oriented solutions to complex business problems.

PROFESSIONAL EXPERIENCE

DATA SCIENTIST

TRION INFOTECH., Hyderabad/01.06.2019 – Present
Technology Stack: Python, ML, DL, NLP, Pandas, NumPy, SciKit-Learn.

Technical Expertise

- Deep understanding and expertise in the field of Machine Learning, Deep Learning and Statistical Learning. Placed various machine learning techniques to build dynamic models, and maximize accuracy values using KNN, NB, Logistic Regression, SVM, DT and RF.
- Experience in Exploratory Data Analysis and Data Visualization with principal component analysis and TSNE. Graphs, Classification, Regression, Computer Vision.
- Build a unsupervised learning models to get the target value and apply machine learning and deep learning concepts to classify the LinkedIn posts
- Build a Recommendation engine that suggests similar products (apparel) to the given product (apparel) in any e-commerce website based on Text and Image Features.
- Build a number plate detection system using OpenCV, Image Processing, and other deep learning models like CNN and ResNet.Build a multi-class image classifier system using Convolutional Neural Network (CNN), VGG-16, and Image Net to find the driver distraction problem. Use Django framework to deploy all python, machine learning, and deep learning projects.
- Build a multi-class image classifier system using Convolutional Neural Network (CNN), VGG-16, and Image Net to find the driver distraction problem
- Use openCV to collect live and spoof image for the training build the deep learning model and apply that model on real-time webcam. Build API using Flask to classify live or spoof.

FIELD VERIFICATION ASSISTANT

ITC LIMITED., Kandukur (Tobbaco Related)/01.06.2010 – 01.06.2019

Roles & Responsibilities:

- Field Verification Assistant at ITC Limited.
- Worked on analyzing the data flow between retailers, distributors, and supply chain team.

PROJECT DETAILS

1. Project Title – Sales Einstein *(Machine Learning and DL –Multi class classification Task)*

Description:

The data is related with LinkedIn posts. Classify the very post with or without images into some of the categories. Build the classification model using Machine Learning or Deep Learning with some hyper parameter tunings then apply entity detection within each post type and extract some features.

Skills Involved: Python, EDA, BOG, TF-IDF, AVG W2V, Logistic Regression, Random Forest, ANN, CNN, and LSTM, etc.

2. Project Title – Bank Marketing Analysis *(Machine Learning – Binary class classification Task)*

Description:

The data is related with direct marketing campaigns of a Portuguese banking institution. The marketing campaigns were based on phone calls. Often, more than one contact to the same client was required, in order to access if the product (bank term deposit) would be ('yes') or not ('no') subscribed.

Skills Involved: Python, EDA, KNN, NB, Logistic Regression, SVM, DT, RF and XGboost algorithms with hyper parameters tuning, etc.

3. Project Title – Drug Side Effect Prediction Using Machine Learning Models

(*Machine Learning – Multi class classification Task)*

Description:

Current evidences show the advantages of medicine reviews by users for the safe and effective use of medicines. This data set provides the opinions of consumers about their conditions and the medicines that they have used.

This product could be helpful for companies like 1mg to provide detailed rating of the side effects of the product over their site. It could also be helpful for the patients who are buying drugs online to check the side effects of the drugs before buying it. This is multi class classification problem we used machine learning algorithms.

Skills Involved: Python, EDA, Visualization, Data Processing, and Text preprocessing, KNN, Naïve Bayes, Random Forest, Logistic Regression, and SVM etc.

4. Project Title – No helmet and Triple riding number plate prediction (*Deep Learning – Object detection task)*

Description:
There are very few automobiles in developing countries because motorcycles have always been the predominant mode of transport. Motorcycle crashes have been on the rise in the last few years. A number of people who are involved in traffic collisions include motorcyclists who do not wear reflective helmets, since they do not believe they provide sufficient protection. In this project we created the model to predict the no helmet and triple ride classes and extract the number plate also.
Skills Involved: Python, EDA, Visualization, Image Processing, Object detection problem, SSD model, etc.

5. Project Title – Face Liveness Detection (*Deep Learning – Binary classification task)*

Description:
The problem of detecting fake faces v/s real/legitimate faces is treated as a binary classification task. Basically, given an input image, we'll train a Convolutional Neural Network capable of distinguishing real faces from fake/spoofed faces. There are 4 main steps involved in the task:

- Build the image dataset itself.
- Implement a Deep Learning model capable of performing liveness detector.
- Train the liveness detector network.
- Create a Python + OpenCV script capable of taking our trained liveness detector model and apply it to real-time video.

Skills Involved: Python, EDA, Visualization, Image Processing, CNN, VGG-16, OpenCV, Flask, etc.

CORE COMPETENCIES

Languages : Python.

Packages : SciKit-Learn, NumPy, Seaborn, Pandas, NLTK, Matplotlib, Tensorflow, Keras, OpenCV.

Statistics/ML : PCA, t-SNE, KNN, Linear/Logistic Regression, SVM, Ensemble Trees, Random Forests, Clustering, Gradient Boosted trees and NLP.

Deep Learning: ANN, RNN, CNN, LSTM, Transfer Learning, Object Detection Models, SSD and YOLO.

EDUCATION

- **B.Com (Computers)** from T.R.R. Govt. Degree College (ANU- 2009) Kandukur, Andhra Pradesh.
- **Intermediate** from Govt. Junior College (2006), Ponnaluru, Andhra Pradesh.
- **S.S.C** from Z.P. High School (2004), Cheruvukommupalem, Andhra Pradesh.