RAAJESH LAGUDUVA RAMESHBABU

Senior Data Scientist

Trying to make the world a better place, one line of code at a time.

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https://github.com/raajeshlr?tab=repositories

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Shivani Apartments, Bangalore.

Infosys Ltd - 6.2 Years

B.E ECE: 86.3 %

WORK EXPERIENCE - Research and Development Infosys Ltd, Dec 2018 - Present

INFOSYS FRAUD DETECTOR

- Developed web application - Angular: UI Layer, Python: Application Layer, MongoDB: Data Layer.
    - I have worked on **Python and MongoDB** and have understandable knowledge on Angular.
- I have used **LSTM + CNN** based ensemble network for identifying fraudulent info in text and numerical data.
- **Deep Learning model + NLP techniques** Spacy, tesseract, bounding box for identifying tampered image.
- I have used **Docker** for Python, implemented **Azure AD Single Sign On (SSO), 3-tier architecture.**

The product is live, and I have taken care end to end - Requirement, technically leading, deployment.

COMPREHENSIVE CROSS CHECK FOR NEW JOINERS

- Developed **Python bots** for extracting fields from documents and pdfs, comparing it with SAP DB data.
- I have created the pipeline of this project and deployed it in the Virtual machines.

It is for the HR Team and the product is live, it automated the manual cross check work and reduced FTE's.

INFOSYS INTELLIGENT CHATBOT - Understands user screen and provides solution.

- I have developed **Microsoft Azure ChatBot** using node.js and used **Python for backend Machine Learning.**
- I have used **One-Shot Learning, NLP techniques,** and built with **QnA and RPA Services.**
- Deployed **Python code to Azure as a Docker image.**

INFOSYS INTELLIGENT ASSISTANT - To Automate Support Projects.

- I have used **Logistic Regression, Random Forest, Decision trees algorithm** for the text classification.
- I have implemented **LDA for clustering for tickets, spacy for NER, text rank for related tickets.**

SIGNATURE CLASSIFICATION USING CNN

- I have started this project from scratch, collected the images, labelled it, trained using CNN model.
- I have then written the python code for cropping, finding the coordinates and completed this small project.

INTERNSHIP EXPERIENCE https://theschoolof.ai/

Experience on CNNs and NLP using Keras and PyTorch, GAN.

CNN - Image classification and object detection, Landmarks detection, Transfer Learning, super convergence.

NLP - RNN's and LSTM for text classification, Sequence to Sequence models.

CNN Projects in Keras: https://github.com/raajeshlr/EVARepository

NLP Projects in PyTorch: https://github.com/raajeshlr/NLP-END

WORK EXPERIENCE – IT Analyst TCS, Dec 2016 – Nov 2018

HOME CREDIT DEFAULT RISK

- Our goal is to predict loan defaulters using Logistic Regression, Random Forest, and LightGBM model.
- Performed EDA, preprocessing done, tried feature engineering, and evaluated with ROC AUC.

FINDING DONORS FOR CHARITY

- Our goal is to predict individuals makes money > $50,000 to appeal donor for a non-profit organization.
- Performed EDA, pre-processing including skewed continuous feature transformation, normalization, encoding.
- Performed Grid Search CV and fine-tuned essential parameters for GBM, which achieved a prediction accuracy of 87%.

DENSELY CONNECTED CONVOLUTIONAL NETWORKS – DENSENET

CIFAR10 DATASET: DENSE-NET PAPER https://arxiv.org/pdf/1608.06993.pdf

- Created Dense-Net architecture with three convolution blocks and two Transition blocks.
- Achieved the max validation accuracy of 88% after fine-tuning and implementing OneCycleLR.

CREATING CUSTOMER SEGMENTS

- Developed Unsupervised Learning, clustering technique, demonstrated feature scaling, dimensionality reduction and feature transformation using PCA and identity customer segments hidden in the data.
- Developed K-Means clustering algorithm and GMM and measured performance with Silhouette score.

CONVOLUTIONAL NEURAL NETWORKS USING FASHION MNIST DATA- NO OBSELTE METHOD

- Goal is to achieve 99.2% Val Accuracy with less than 20,000 Hyper-parameters (No Hidden layers should be used).
- Developed the model with a high-level framework Keras, with selection of Tensorflow for backend.
- The model achieved 99.2% Validation accuracy in 11 Epochs.

RESTAURANT REVIEW MANAGEMENT SYSTEM

- Goa is to classify reviews, performed cleaning, stemming, created corpus and bag of words with 2000 features.
- Implemented Gaussian Naïve Bayes Classifier, and trained and tested the model, evaluated using f1_score.

CERTIFICATES

ML Nanodegree - Udacity, Sequence Models - Coursera, Machine Learning - Coursera, Machine Learning A-Z - Udemy.

SKILLS

Machine Learning, Deep Learning, NLP, RNN, LSTM, Tensorflow, Keras, PyTorch, Image Processing, OpenCV, Python, MongoDB, REST APIs, Microsoft Azure Services, Docker, SQL, Git, Leadership Skills.

HONOR AWARDS

Impact creator award from Infosys.
Best Performer of the year award from TCS.
Service and commitment award from TCS.

LANGUAGES: Sourashtra, English, Tamil, RW Hindi, Learning Kannada.

INTERESTS: Advanced Deep Learning and NLP.

ACHIEVEMENTS

- Secured ‘Certificate A’ Exam under authority of, Ministry of Defense, Government of India.
- Completed Hindi Exams until Praveshika.
- Presented Parallel Parking robots and image processing surveillance system papers during college