Rajesh Shanmugam

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Professional Experience

PositiveNaick Analytics 2018 – present
Data Analyst / Software Developer Chennai, India
Wrote code, built models and Responsible for end to end Data science pipelines.
Being a part of the backend team focusing on Application Development (Primarily on ML, NLP and CV).

Skills

Python ●●●●○

NLP ●●●○○

Database ●●●●○
Neo4j, MongoDB, SQL, PostgreSQL, Redshift

Computer Vision ●●●○○
Image classification, Image Processing, Face detection, Object detection and Object tracking.

Machine Learning ●●●○○

Software Development ●●●○○
GIT, Linux, Containers

Projects

Chatbot Application
Yekaliva
Back end contributor, Wrote code, built ML models(Classification Model), and Knowledge graphs(Neo4j) for the rapid intent processing and retrieval. Exposure to NLP techniques and libraries.

Data Virtualization
Responsible for the end to end pipeline, which consists of Requirement gathering, Data collection(S3), Data Engineering(AWS Glue, Redshift), Writing code, and the deployment(Docker) also responsible for Communicating with business users.

Computer vision
The primary objective is to track persons with a fast processing system due to real-world constraints. It leads to the use of OpenCV extensively. This project also includes demographics identification(Neural Networks), object detection, and localization.

Retail Analytics
Analytics as a Service
The objective is to segment the customers based on their Visiting and buying patterns(RFM Analysis) as Champions, At-Risk, and Needs Attention customers. It also includes identification of upselling and cross-sells items based on how those items contribute towards sales amount for a particular customer(Personalized recommendations).

Side Projects and POCs

Simulation Trials
To validate and understand the ML models and Factors contributing to the prediction by visualizing(Streamlit) the prediction probabilities, Planning on extending this with more features like automating Data exploration, Model recommender, and Model evaluation.

Semi Voice Process Automation
The objective is to Automate the semi voice process by replacing the Agent with an ML model. It comprises multiple modules includes listener, STT, Answering bot(Classification Model) and the TTS.

STT Experiments
It has multiple objectives like keyword spotting in an Audio clip, Speaker diarisation, and Speech modification. Google STT API and Deepspeech model was used in this experiment.

Table to Grpah
Graph recommendation system, Based on the type and Distribution of the data. With the Input data in CSV, data types are identified, and based on the types of data will be sliced and diced for Visualizations. Currently, it supports Univariate and Bivariate Analysis. Multivariate Analysis is under work in progress

Data Summarizer
One of the modules of Table to Graph, Which identifies the data types, and also cleanse and normalize the data if required.

Baby steps with Ruby
Trying to learn ruby.

Interests

- Computer Vision
- Analytics as a Service
- Augment Reality
- Data Engineering
- Dev-Ops

Education

DR.MGR University 2013 – 2017
B.Tech Chennai, India

References

Nathan Kannan, *VP of Operations & Sales*, Positivenaick Analytics
9884169871

Rinaldo Rex, *Senior Backend Developer*, PositiveNaick Analytics
9500646400

Mukund Madhanagopal, *Associate*, AstraZeneca
95001 00243