Santhosh Kurnapally

Machine Learning Engineer

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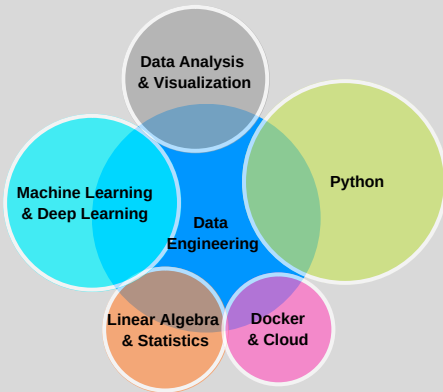in /in/kurnapally

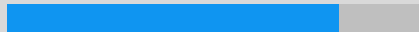⊙ github.com/skurnapally

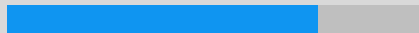## Technical Skills ●━━○

Overview
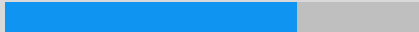

Skills & Libraries

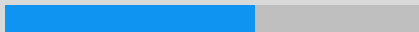Python | Machine Learning | Deep Learning

Numpy | Pandas | Sklearn | Seaborn | Matplotlib

Tensorflow | Keras | Open CV | NLTK | Hugging Face

SQL | MongoDB | Neo4j

Docker | GCP | Azure

Summary

Seasoned software engineer with over 7 years of experience in software development and data analysis having a strong background in machine learning, with 3+ years of dedicated experience in developing and deploying machine learning models. Proficient in Python programming, data analysis, machine learning and deep learning, capable of designing and building end-to-end machine learning solutions that deliver high-quality results. Committed to staying up-to-date with the latest advancements in the field and delivering top-notch solutions to clients.

Experience and Projects

Diploma in AI and ML   **(Nov 2021 - Present)**
University of Hyderabad - Hyderabad, Telangana

Understood and implemented multiple areas of machine learning and deep learning from first principles and documented the same on GitHub.Completed diploma with **Distinction**.

Diploma Thesis : Multimodal (image and text) representation learning in healthcare to combine text and image data in the medical domain.
Technologies : Python, Google Colab, Scikit-learn, Pandas, Numpy, Seaborn, Tensorflow, NLTK, Open CV, Pickle, Streamlit, GitHub, Streamlit Cloud.
Thesis_Report : Github
Source Code : Github
Blog : Medium
Deployment : Streamlit Cloud

- Developed a Deep Learning Model which generates meaningful findings for the Radiology reports from the chest X-Rays using medical image captioning.
- Implemented encoder-decoder model with global attention model with transfer learning for image and text processing for image captioning, used DenseNet121 as the backbone and pre-trained ChexNet weights for X-Rays and GloVe 300 dimensional word embeddings for text processing.
- Implemented RNNs like LSTM and GRU as we are dealing with sequential information like image and text and BLEU score as a metric and were able to achieve around 29 % BLEU score despite having less training data.
- Performed end-to-end thesis from requirement collection to model deployment.

Infosys Limited - Hyderabad, Telangana   (**Jan 2020 - Nov 2021)**
Technology Lead - Machine Learning
Client : Reckitt Benckiser
Technologies : Python, Anaconda, Scikit-learn, Pandas, Numpy, Seaborn, Matplotlib, Tensorflow, Hugging Face, NLTK, Pickle, Flask, Postman, MongoDB, PostgresSQL, Docker, GitHub, Google Cloud Platform

- Piloted the initiative to build a Machine Learning model to perform classification to predict the ETA resolution time interval of the service ticket raised and helps in prompt ticket resolution resulting in an increase of quarterly ticket completion rate of our client by 15%.
- Successfully built a Machine Learning model to perform sentiment analysis on customer reviews of Reckitt Benckiser products and provide useful insight to the business resulting in customer retention by 14%.
- Led a team of 2 in implementing an end-to-end solution from requirement collection to deployment and handed it over to the client.
- Extensively used Docker, Cloud Run, Compute Engines, Cloud Storage, and Google Container Registry in productionizing the solution.

Infosys Limited - Hyderabad, Telangana **(Jun 2019 - Jan 2020)**
Technology Lead - Machine Learning
Client : Kraft Heinz (myfoodandfamily.com)
Technologies : Python, Anaconda, Scikit-learn, Pandas, Numpy, Seaborn, Matplotlib, NLTK, Pickle, Flask, Postman, Neo4j, MongoDB, PostgresSQL, Docker, GitHub, Microsoft Azure

- Developed a recipe recommendation system that recommends recipes to the users based on their taste and their favorite recipes and provides better customer satisfaction resulting in increased e-commerce share in quarterly revenue by 6%.
- Implemented User-User and Item-Item similarities to develop a taste graph from which recommendations are extracted. Handled cold start problems for Users and recipes using respective Metadata.
- Extensively used Docker, Container Instances, Virtual Machines, Azure Storage, Cosmos DB, and Azure Container Registry in productionizing the solution.

Infosys Limited - Hyderabad, Telangana **(Feb 2018 - Jun 2019)**
Technology Analyst - Machine Learning
Project : Digital Brain
Technologies : Python, Anaconda, Pandas, Numpy, NLTK, RASA, Pickle, Flask, Postman, MongoDB, Docker, GitHub, GCP

- Digital Brain is one of the key components in Infosys Live Enterprise Suite which enables enterprises to accelerate digital transformation so they can drive intuitive decisions, build responsive value chains and deliver perceptive experiences.
- Developed Key microservices in the product and enabled it to load and fetch data from multiple databases.
- Actively participated in productionizing our solution by involving in network architecture discussions, Infrastructure creation, deployment of the solution, and the end-to-end solution testing and documentation of the same.
- Collaborated with multiple teams across DNA vertical for understanding and integration of services/solutions in "Digital Brain" if found useful and helping them realize there use cases through our solution.
- Communicated and coordinated with the team members for issue resolution and mentored them through the development process.

Cognizant - Bangalore, Karnataka **(Mar 2014 - Feb 2018)**
Data Analyst/Associate
Client: Core Logic
Technologies : Informatica PowerCenter, excel, SQL, Client Specific Tool for data Analysis

- The purpose of the project is to perform Data Analysis and ETL operations on raw public property Record data using Informatica PowerCenter and Load the data into a data warehouse which in turn is used by Client products to minimize cost, increase productivity and guide one towards sound decisions in the mortgage industry.
- Involved in designing various Mappings with the Transformation rules using Transformations and tuned them for better performance.