

SANDEEP KUMAR BULLAGONDLA

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PROFESSIONAL SUMMARY:

Results-oriented and detail-driven Data Scientist with three years of hands-on experience leveraging advanced analytical techniques to solve complex business problems. Adept at developing and implementing machine learning models, statistical analyses, and data-driven strategies to drive actionable insights and informed decision-making. Proficient in programming languages such as Python and R, and experienced in working with data visualization tools, databases, and big data technologies.

EXPERIENCE:

Data science Intern - Innomatics Research Labs, Remote

February 2023 – May 2023

- Built Classification models for Quora question similarity to check if question is duplicate or not, by extracting and transforming data using NLP techniques.
- Tracked the experiments using MLflow, built production ready code and automated tasks using workflow orchestration using CI/CD pipeline, MLflow (open-source).

Data Scientist (Contract) - Legato Health Technologies, Bangalore

February 2020 – December 2021

- Built the robust backend system for onboarding guest users on the portal to view public news.
- Created the APIs to retrieve news from MongoDB based on the preferences given by users using Flask.
- Tracked the policies often used and rejected by customers and helped in implementing new policies for business improvement.
- Tuned hyperparameters for each model and calculated best model using evaluation metrics such as MSE, MAE, and R^2 .

Junior Data Scientist - Tata Consultancy Services, Bangalore

December 2018 – January 2020

- Collaborated with cross-functional teams in implementing airline ticket booking system and flight availability status.
- Analysed the impact of airline business through platform customer reviews and improved the efficiency by 22%.

DATA SCIENCE PROJECTS:

British Airways Customer Review Analysis

Techniques/methods: *Natural Language Processing, LLM*

- Web scrapped the BA customer reviews using the BeautifulSoup package and analysed and transformed using NLP.
- Resulted in 49.1% positive, 33.1% negative and 17.5% neutral sentiment reviews. Overall accuracy of model is 79%.

Stock Price Prediction Using LSTM

Techniques/methods: *LSTM, RNN, Keras, Deep learning, Time-series Forecasting, Seaborn, pandas*

- Performed stock price prediction using four LSTM models (Univariate, Multivariate, Bi-directional, CNN-LSTM) for 5 years data in TensorFlow.
- Tuned hyperparameters for each model and calculated best model using evaluation metrics such as MSE, MAE, and R^2 .

Image Classification and Binary Classification

Techniques/methods: *TensorFlow, Computer Vision, Scikit-Learn*

- Classified images using Convolutional Neural Networks (CNN) model in TensorFlow with accuracy of 82%.
- Implemented Early Stopping, Transfer Learning, MobileNet, ResNet, Image Augmentation to be robust against overfitting.
- Classified binary data using Random Forests, Decision Trees, Logistic Regression, SVM. With accuracy of 79.2% for SVM.

Spatial and Temporal Analysis of UK Climate Data

Techniques/methods: *ARIMA, DLM, Gaussian Process, Regression, Matplotlib*

- Analysed temperatures across the UK during Summer, Spring and Winter using Spatial model. Produced AIC = 77.3.
- Predicted temperatures of different locations in the UK by time series analysis using ARIMA. Achieved $\sigma^2 = 5.9$.

Clustering and Analysis of UK Power station demand

Techniques/methods: *K-means, Hierarchical clustering*

- Developed 4 clustering models using unsupervised learning to study the types of power consumption in UK.
- Predicted and visualized the trends and patterns of electricity demand in the UK.

EDUCATION:

University of Exeter | Exeter, UK

January 2022- January 2023

Masters in applied data science and Statistics

Grade: **Distinction**

SKILLS:

- Extensive knowledge of Python, C#, SQL, Tableau, R, CI/CD Pipeline, Docker, Jupyter Notebook.
- Experience of Machine Learning algorithms, Deep Learning using TensorFlow.
- Excellent knowledge of data, statistical analysis and modelling, data visualization.
- Data structures and algorithms, System Design and Coding.
- Cloud computing in Azure and Basics of AWS, Prefect and MLflow.
- Experience in Problem solving, Analytical skills and Communication skills. Ability to communicate results to stake holders.
- Version Control using Git.
- Worked on HTML, CSS, ReactJS, NodeJS, JavaScript