

Hemachandrika Rage

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SUMMARY

- I have 1 Year of experience as a BI Data Analyst, where I created impactful reports using Power BI and SQL, supporting data-driven decisions and in my 2 years of academic hands-on experience with analytics, machine learning, and natural language processing (NLP).
- I've led academic projects like sentiment analysis for British Airways and improved model accuracy for digit recognition with deep learning.
- Skilled in Python, SQL, and various visualization tools, I am passionate about leveraging data to solve real-world problems and drive business success.

SKILLS

Programming Languages – Python, SQL, R, MySQL, Pyspark, Jupyter Notebook, VS Code, **Code Versioning** – GitHub

Visualization Tools – Matplotlib, Seaborn, Excel, Pivot Tables, VBA, PowerBI, Tableau,

Data Analysis & Modeling Techniques – EDA, Logistic Regression, Supervised Learning, CNN, LDA, Data Cleaning, **Deep**

Learning Frameworks and Tools – Keras, TensorFlow, Hypothesis Testing, Regression **Web Scrapping** – BeautifulSoup, **Natural**

Language Processing (NLP) Tools – NLTK, VADER (Valence Aware Dictionary and sEntiment Reasoner), Latent Dirichlet Allocation.

EXPERIENCE

Tata Consultancy Services, Bengaluru, Karnataka, India

Dec 2021 – Dec 2022

BI Data Analyst

- Developed over 30 interactive reports, enabling key decision-making that resulted in a 15% increase in operational efficiency across departments.
- Integrated Power BI with 10+ SQL databases and various platforms, enhancing data accessibility and reducing report generation time by 20%.
- Engineered 5+ tailored analytics solutions that streamlined workflows, reducing project completion times by an average of 25%.
- Mastered industry-specific standards and operations within the first 6 months, leading to actionable strategies that improved compliance by 30%.

PROJECT

Sentiment Analysis- Customer Feedback Analysis for British Airways

Python, Web Scrapping, NLTK, LDA

Feb 2024-April 2024

- Handled a data-driven project for British Airways that analyzed consumer sentiment and extracted useful insights from a wide range of customer reviews obtained from airlinequality.com.
- Utilized Python for sentiment analysis, web scraping, and data preprocessing.
- Using visualization libraries, critical data were visually represented, providing clear insights
- Shown proficiency in data visualization, strategic communication, and natural language processing.

Neural Network-based Handwritten Digit Recognition

Python, Keras, TensorFlow, CNN

Nov 2023 – Jan 2024

- I tackled the MNIST handwritten digit classification task throughout my project by combining deep learning architectures with conventional machine learning approaches.
- In the beginning, I used a multilayer perceptron (MLP) which is also a neural network, and on the test dataset, I achieved an impressive accuracy of over 96%.
- I switched to a CNN architecture with dropout regularization to improve model performance even further and investigate convolutional neural networks (CNNs), which produced even higher accuracy.
- By utilizing methods including data preparation, hyperparameter adjustment, and model assessment, I improved the CNN model to surpass 96.5% test accuracy.

Loan Approval Prediction using Machine Learning

Python, EDA, Logistic Regression, Supervised Learning

Aug 2023 – Oct 2023

- Utilizing machine learning techniques, I led a Loan Prediction project that streamlined financial institutions' loan approval processes.
- I created a logistic regression model to forecast loan acceptance based on applicant data by utilizing supervised learning methods. Data cleansing, exploratory data analysis, feature engineering, model construction, and performance evaluation were among my duties.
- I performed thorough data analysis and visualization using Python tools to comprehend variable distributions and spot predictive trends. With careful examination of the precision-recall curve, ROC curve, accuracy score, and confusion matrix, I was able to obtain an accuracy of 84.87% on the validation dataset.

EDUCATION

Saint Peter's University, Jersey City, New Jersey

Master of Science in Data Science – CGPA 3.91*/4

May 2023 – Dec 2024

JNTUA College Of Engineering Ananthapur, Andhra Pradesh, India

Bachelor of Engineering (Mechanical Engineering) – CGPA 8.06/10

Jul 2016 – May 2020

CERTIFICATIONS

Snowflake - [Hand-on Essentials Snowflake](#) , SQL-[SQL Essentials Training](#)