# **P Ranganath Swamy**

Bangalore 

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### PROFESSIONAL SUMMARY

"To secure an entry-level data scientist position by leveraging strong analytical skills, expertise in Python and SQL, and a passion for solving complex problems through actionable, data-driven insights.

### EXPERIENCE

# Data Science Intern | | Bengaluru |

- 6 months of Data Science internship experience with a strong foundation in Python and SQL, applying data-driven approaches to real-world business challenges.
- Skilled in Exploratory Data Analysis (EDA), data cleaning, visualization, modeling, manipulation, and analysis for actionable
- Applied ML & DL algorithms to real-world problems involving text and time series data.
- Developed and evaluated multiple classification and regression models using Python.

### **EDUCATION**

Data Science Course | ExcelR Solutions | Bengaluru | 2024

Bachelor of Engineering | Ballari Institute of Technology & Management | Ballari | 2023 | 7.22 CGPA

### PROFESSIONAL CERTIFICATIONS

Data Science with Python | ExcelR (ML, Deep Learning, NLP, Deployment)

Data Data Science Internship. AI Variant, (Practical exposure to python, Forecasting, Tensorflow, NLP,)

#### TECHNICAL SKILLS

**Programming Languages**: Python, SQL.

Libraries: NumPy, Pandas, scikit-learn, Matplotlib, Seaborn,

Reporting Tools: MS Excel, Power BI, Tableau(Dashboard Creating)

Tools: Jupyter Notebook, Visual Code, Google Collab,,

Machine learning: Algorithms for regression (linear/logistic), Classification & Clustering analysis, PCA, DB scan.

A I: NLP, Neural network [Deep learning], Forecasting, Association rule, and Recommendation system.

## **PROJECT**

# Forecasting (Microsoft-Stock Price Prediction) AI Variant |

- Utilized EDA techniques for effective data cleansing and preparation, ensuring data quality for analysis.
- Performed data visualization using various plot types to identify patterns, trends, and correlations within datasets.
- Executed feature engineering to enhance model performance by selecting and transforming relevant features.
- Achieved a **well-defined LSTM model** with an optimal **RMSE** score of **12.77** and **MSE** of **6.023**, ensuring high model accuracy and reliability.
- Delivered actionable insights and validated model performance, enhancing decision-making processes.

# **Customer Segmentation for Indian E-commerce (Unsupervised Learning)**

- Conducted RFM (Recency, Frequency, Monetary) analysis on transactional data to engineer features representing customer behavior.
- Applied K-Means and Hierarchical Clustering to segment customers into distinct groups such as high-value, loyal, and at-risk segments.
- Used PCA for dimensionality reduction and validated cluster performance using Silhouette Score.
- Delivered actionable insights for personalized marketing strategies through cluster profiling and visual storytelling.

# NLP (Real or Fake News Analysis) | AI Variant |

- Data Collection & Cleansing: Gathered data and cleaned it for analysis (EDA).
- Data Processing: Applied text cleaning, tokenization, stopword removal, stemming, and vectorization; used word embeddings.
- Feature Extraction: Implemented bagging, boosting, and TF-IDF vectorization.
- **Model Building & Evaluation: Trained** and evaluated a number of machine learning models, such as Recurrent Neural Networks (RNN), Decision Tree Classifiers, Random Forest Classifiers, and Logistic Regression.
- Based on the RNN's capacity to accurately model sequence data, the LSTM layer was added.
- **Conclusion:** Achieved the highest accuracy and precision with RNN, demonstrating its effectiveness in distinguishing between fake and real news.

# **SOFT SKILLS**

- Strong communication and analytical storytelling with stakeholders
- Problem-solving mindset with curiosity and passion for innovation
- Effective team collaboration in cross-functional environments.