

Raghava Vigneswar V

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EDUCATION

- **Christ Deemed To Be University, Bengaluru** Bengaluru, India
• *M.Sc. Mathematics; CGPA: 9.6* Aug 2022 – Jun 2024

PROFESSIONAL EXPERIENCE

- **ICICI Bank** Jul 2024 – Present
• *Analyst, Data Science and Analytics Group (Liabilities Team)*
 - Developed **Prophet time series model** to forecast one-year MIB data for branches, achieving **predictions within $\pm 10\%$ of actual test data** and supporting accurate target setting.
 - Developed a **Python script to retrieve UCIC values for 600 educational institutes** from the database by implementing name mapping with the **fuzzyrapido** library for accurate entity matching.
 - Deployed an interactive **Power BI dashboard for M+3 Analysis** to visualize customer behavior three months after opening savings accounts, enabling data-driven insights for business decisions.
 - Led **DEAF and HEAR Campaign** as an Analyst, collaborating with the product team to reactivate **500,000+ dormant and inactive accounts**, securing an active balance of **Rs.700+ crore**.
 - Conducted **Cash Retention analysis** on customer accounts using **Python**, identifying high-value customers with the longest retention period, peaking at **27 days**.
 - Designed and deployed fully automated **Power BI** reports for the Hear and Deaf campaign, eliminating manual dependencies and improving reporting efficiency by 100%, enabling instant insights for the marketing team.
 - Performed **Web Scraping** using **Python** to extract car price data from CarWale, linking it with ICICI FASTag customer data to enable in-depth analysis of customer vehicle profiles and behavior.

KEY PROJECTS

- **Air Quality Index (AQI) Forecasting and COVID-19 Impact Analysis Using Time Series Models:**
 - Delivered **high-accuracy AQI forecasts** using **Facebook Prophet** with **Train MAE: 12.10, RMSE: 15.65** and **Test MAE: 9.72, RMSE: 13.77**, enabling early detection of pollution trends for **environmental risk management**.
 - Performed **COVID-19 lockdown impact analysis (March–May 2020)** showing **AQI reductions up to 35.7% (Delhi), 30.7% (Mumbai), and 23.6% (Hyderabad)**, demonstrating the effect of reduced human activity on air quality.
 - Developed an end-to-end **machine learning pipeline on Azure ML** for AQI analysis, achieving **87.90% accuracy** and an **F1 score of 88.01%**.
 - Utilized **Topological Data Analysis (TDA)** for clustering cities based on AQI patterns, aiding policy standardization.
- **Predictive Modeling for Customer Subscription in Banking Marketing Campaigns:**
 - **Data Manipulation:** Conducted EDA, performed data cleaning, feature selection, and applied **SMOTE** to address class imbalance.
 - **Data Modeling:** Built supervised ML models like **Logistic Regression, Random Forest, XGBoost**, achieving **91.23% accuracy**.
 - **Model Evaluation:** Recommended **Random Forest** for balanced performance, optimizing marketing strategies.

TECHNICAL SKILLS

- **Programming:** SQL (MS SQL Server, MySQL), Python (Pandas, NumPy, Scikit-learn), C.
- **Databases:** ETL Pipelines, Data Warehousing, Microsoft SQL Server, MySQL.
- **Tools & Platforms:** Jupyter, VS Code, DB Visualizer, Power BI, MS Excel, Vertica, Azure Machine Learning.
- **Data Analytics:** Data Cleaning, Statistical Analysis, Predictive Modeling, Exploratory Data Analysis, Reporting & Visualization, Machine Learning, Deep Learning.
- **Domain Expertise:** Retail Banking Analytics, Statistical Modeling, Financial Modeling.
- **Relevant Coursework:** Database Management Systems, Data Structures and Algorithms, Object-Oriented Programming.

SOFT SKILLS

- **Skills:** Leadership, Stakeholder Management, Team Collaboration, Analytical Thinking, Communication, Adaptability, Problem-Solving.

CERTIFICATIONS

- **Introduction to Statistics** : Stanford.
- **Generative AI with Large Language Models**: Deep Learning.
- **Azure Machine Learning**: Microsoft.
- **International Teaching Week 2024 on Topological Data Analysis using Python** : Christ University.