

SONAL RANA

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SUMMARY

Experience data analyst with 1 year of hand on experience in **data collection, Cleaning, Transforming and analysis to derive meaning full insights**. Proficient in **data mining, statistical modeling, data visualization** with expertise in **Power bi, SQL, Python**.

Highly technical data analyst with a strong theoretical and practical understanding of statistical inference, predictive modeling, and machine learning algorithms. Experienced in manipulating and analyzing large datasets using **python (Pandas, NumPy, Scikit-learn)** and visualizing insights with tools like **tableau**. Holds the **Google Advanced Data Analytics Certificate**, demonstrating a commitment to **advanced methodologies** and a desire to contribute to the data-centric environment.

SKILLS

- **Programming Language:** Python(Pandas, NumPy, Scikit-learn), SQL.
- **Databases:** MySQL, SQL, PostgreSQL.
- **Data Visualization Tools:** Power BI, Tableau, Ms Excel, Matplotlib, Seaborn, Plotly.
- **Developer Tools:** Git/Github, VS Code, Visual Studio, PyCharm, Atom.
- **Data Science Tools:** Jupyter notebook , Kaggle.
- **Statistical Analysis:** Statistical Modeling(Regression, ANOVA), Hypothesis Testing & Inference, EDA.
- **Machine Learning:** Algorithms (Regression, Classification, Clustering), Feature Engineering & Selection.

EXPERIENCE

GlobalLogic, gurugram—*Data Analyst*

SEP2023 – APR2024

- Design and Develop Microsoft Power BI dashboards with live data feeds.
- Boosting real-time data accessibility for users across multiple departments.
- Builds Microsoft Excel dashboards for executive reporting to enable real-time performance tracking for key performance indicators.
- Analyzed transaction data using Microsoft SQL Server to identify fraud patterns, contributing to a 29% downstick in fraudulent activities.
- Used Alteryx to cleanse and normalize data. improving data Quality for downstream and analytics and slashing error rate by 22%.
- Developed and maintained dashboards and key performance indicator (KPI) reports to track business performance and identify areas for growth.
- Collaborated with cross-functional teams to design and implement data-driven strategies aimed at optimizing business processes.

EDUCATION

Harlal Institute of Management and Technology, Greater Noida ,India—*MCA(2022-2024)*

D.S Degree College,Aligarh ,India—*BCA(2019-2022)*

CERTIFICATION

Google Advanced Data Analytics , Coursera (Apr-2025)

KEY ACHIEVEMENTS

Fraud Reduction Achievement –

Contribute to a significant reduction in fraudulent activities by identifying patterns in transaction data during my experience as a Data analyst.

CAPSTONE PROJECTS

TikTok Advanced Data Analytics Project -

Project Goal: Developed a predictive model to classify user-reported TikTok videos as "claim" or "opinion" for efficient moderation.

- **EDA Insights:** Identified skewed feature distributions reflecting social media dynamics; "claim" videos showed higher engagement.
- **Statistical Analysis:** Verified accounts had significantly more views; video engagement strongly correlated with "claim" status, potentially mirroring the relationship with verified status.
- **Modeling & Key Findings:** Built high-performing tree-based ensemble models classifying "claim" vs. "opinion"; video engagement metrics (views, likes, downloads, shares) were the strongest predictors.
- **Model Performance & Recommendations:** Achieved sufficient model performance without further tuning; recommended ongoing evaluation with new data and post-deployment monitoring for robustness against engagement fluctuations.

Waze Advanced Data Analytics Project -

Project Goal: To conduct a full analysis of a data set and to build a machine learning model to predict the user churn rate, by following the Plan, Analyze, Construct and Execute methodology (PACE).

- **Enhanced Data:** Focused on improving data quality and increasing volume for model enhancement.
- **Advanced Feature Engineering:** Continuously explored and implemented new features to boost model accuracy.
- **Algorithm Optimization:** Evaluated diverse ML models and fine-tuned XGBoost for optimal results.
- **Threshold Optimization:** Analyzed and adjusted decision thresholds to maximize recall and F1-score.
- **External Data Integration:** Investigated and potentially incorporated external datasets for richer model insights.

Crad & Customer Dashboard – A Holistic view of Revenue , Benefits and income Across Sector

- This Comprehensive dashboards provide a 360-degree view of credit card performance and costumer behavior .
- Enabling businesses to analyze revenue generation, understand costumer benefits.
- Track overall income across various sectors by interactive dashboards.
- Improved financial management with detailed transaction history with search and filtering.