MAHADEV PANDHARPOTE

Pune, Maharashtra, India | +91-9356804873 | pandmahadev120@gmail.com
linkedin.com/in/mahadev-data-scientist | mahadev.me

PERSONAL SUMMARY

Data Science professional with strong expertise in Machine Learning, Data Analysis, and Data Visualization. Experienced in building end-to-end predictive models, creating actionable dashboards, and developing automated data workflows. Skilled in Python, SQL/PostgreSQL, and statistical methods to extract insights, improve processes, and drive data-backed decisions. Proven ability to understand business problems, translate data into meaningful outcomes, and deliver solutions that create measurable impact.

EDUCATION

Bachelor of Technology in Computer Engineering **November 2021 – October 2025**
Vilasrao Deshmukh Foundation, Latur, Maharashtra

TECHNICAL SKILLS

Programming Languages: Python, SQL
Machine Learning: XGBoost, Random Forest, SMOTE, SHAP, Scikit-learn, TensorFlow
Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Seaborn, Exploratory Data Analysis
Tools & Platforms: Power BI, Streamlit, Flask, Git, Jupyter Notebook
Core Competencies: Feature Engineering, Data Preprocessing, Model Deployment, Business Analytics

PROJECTS

Telecom Customer Churn Prediction – Live ML Web Application **GitHub | Live Demo**
- Developed end-to-end machine learning pipeline on 243K customer records achieving **ROC-AUC of 0.91** using XGBoost with comprehensive feature engineering and SMOTE for imbalance handling
- Implemented SHAP (SHapley Additive exPlanations) for model interpretability, enabling stakeholders to understand feature importance and prediction rationale
- Deployed real-time prediction dashboard using Streamlit with interactive UI, publicly accessible for business users
- **Tech Stack:** Python, Pandas, XGBoost, SMOTE, SHAP, Streamlit

Real-Time Scream Detection System – Audio Classification Web App **GitHub**
- Built full-stack Flask web application integrating audio signal processing and deep learning classification for emergency detection with location-based alerting capabilities
- Processed and analyzed non-traditional audio data using signal processing techniques and neural networks
- Designed scalable architecture for real-time inference and alert generation
- **Tech Stack:** Python, Flask, Deep Learning, Audio Processing, REST APIs

Uber Demand Forecasting & Analytics Dashboard **GitHub**
- Performed comprehensive EDA on large-scale ride-sharing dataset, identifying demand patterns, peak hours, and geographic trends through advanced data cleaning and anomaly detection
- Engineered temporal and spatial features to capture ride demand dynamics across different time periods and locations
- Built Random Forest regression models for demand forecasting and created interactive dashboards using Matplotlib and Seaborn for business intelligence
- **Tech Stack:** Python, Pandas, Random Forest, Matplotlib, Seaborn

Recommendation Systems – Books & Movies **GitHub**
- Designed collaborative filtering recommendation engines using similarity metrics (cosine similarity, Pearson correlation) and matrix factorization techniques
- Implemented comprehensive data preprocessing pipelines and feature engineering for user-item interaction matrices
- Evaluated model performance using precision, recall, and NDCG metrics
- **Tech Stack:** Python, Pandas, Scikit-learn, NumPy

IPL Cricket Analytics – Exploratory Data Analysis **GitHub**
- Conducted in-depth statistical analysis on Indian Premier League dataset, deriving actionable insights on player performance, team strategies, and match outcomes
- Created compelling data visualizations and reports translating complex statistics into business-readable insights
- **Tech Stack:** Python, Pandas, Matplotlib, Seaborn

ADDITIONAL INFORMATION

Business Tools: Power BI for business reporting and dashboard creation
Languages: English (Professional), Marathi (Native)
Interests: Building end-to-end ML solutions, Data storytelling, Business analytics