ROHAN BALI

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TOOLS AND SKILLS

- Python, R, SQL, SciPy, Statsmodels, Scikit-learn, TensorFlow, Keras, PyTorch, Matplotlib, Seaborn, Plotly, ggplot2, Tableau, Power BI, Pandas, NumPy, dplyr (R), Hadoop, Spark, HDFS, Hive, Pig, Amazon S3, Google BigQuery, Azure Databricks, NLTK, SpaCy, Hugging Face Transformers, GitHub
- Probability and Statistics, Linear Algebra, Calculus, Optimization, Coding Proficiency, Algorithmic Thinking, Supervised and Learning, Model Evaluation and Validation, Data Cleaning, Data Transformation, Visual Storytelling, Communication, Report Writing, Analytical and Critical Thinking, Curiosity and Research skills, Data Ethics and Privacy

PROJECTS

Road Safety Analysis Using Machine Learning The Road Safety Analysis project for Indian highways, diverse machine learning models were employed.Through predictive analytics, they assessed variables such as traffic volume, road conditions, accident history, and weather patterns to identify highways with the lowest risk of accidents, aiding in strategic road planning and safety enhancement measures.

Movie Recommendation System. Harnessing data from 5000 movies on TMDB, I implemented a Bag of Words model for natural language processing. Utilizing vectorization techniques like TF-IDF, the system generates five tailored movie recommendations based on your selection. This method enhances accuracy and personalization.

Boston Real Estate Price Prediction Syste The Boston Housing Price Prediction project aims to forecast housing prices using advanced machine learning techniques. The dataset includes 506 entries with 14 attributes, such as crime rate, number of rooms, and building age. This project outlines steps from data exploration to model deployment.

Used Cars Price Prediction System The Car Price Prediction Model employs Linear Regression, a fundamental and widely-used statistical method, to estimate the market value of used cars. This model predicts car prices based on various input features such as car brand, model, year of manufacture, fuel type, and kilometers driven.

EXPERIENCE

Capgemini | Software Engineer   Dec 2021 - Jul 2024, Mumbai, India

- Proactively monitor cloud infrastructure components, including compute, storage, networking, and security, to ensure high availability, scalability, and performance for clients such as IKEA, SEQUANA and ALE.
- Strong understanding of cloud computing principles and technologies, with hands-on experience in managing cloud infrastructure services (e.g., AWS, Azure, GCP).
- Proficiency in scripting and automation using tools like Python, PowerShell, or Bash to automate repetitive tasks and improve operational efficiency.

Upcred.ai | Machine Learning Trainee   Aug 2021 - Dec 2021, Bengaluru, India

- Spearheaded web scraping initiatives using Beautiful Soup to extract pertinent data from various online sources, facilitating data collection and preprocessing for machine learning projects.
- Employed MongoDB as the primary database solution to store scraped data efficiently, ensuring seamless accessibility and scalability for downstream analysis and model development.

EDUCATION

M.S., Data Science, University of Massachusetts, Dartmouth   Expected 2026
Relevant Coursework: Advanced Machine Learning, Data Mining and Knowledge Discovery, Database Design, Small World Networks and Statistical Mathematics.

B.Tech., Computer and Communication Engineering, Manipal University, Jaipur   2017 - 2021