

SARANSH SHARMA

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PROFESSIONAL SUMMARY

Data Analyst and Machine Learning Practitioner with hands-on experience building, deploying, and maintaining production-ready ML applications. Strong expertise in feature engineering, statistical analysis, and end-to-end ML pipelines. Proven ability to transform raw data into actionable insights and deliver scalable ML solutions via real-time APIs and modern applications. Actively seeking data-driven roles where analytical rigor and applied ML create measurable business impact.

CORE SKILLS

Data & Analytics: Exploratory Data Analysis (EDA), Statistical Analysis, Feature Engineering, Data Cleaning & Validation, KPI Reporting

Programming: Python, SQL

Machine Learning: Regression Models, Random Forest, XGBoost, NLP, Model Evaluation (R^2 , MAE), scikit-learn Pipelines

Visualization & BI: Power BI, Tableau, Excel (Dashboards, Pivot Tables)

Tools & Platforms: FastAPI, Flask, Render, AWS (EC2, Deployment Fundamentals), GitHub, Jupyter Notebook, VS Code

Databases: MySQL, PostgreSQL

Additional: REST API Development, RAG Pipelines, Prompt Engineering, Workflow Automation, Flutter (ML UI Integration)

PROFESSIONAL EXPERIENCE

Digital Marketing Intern

Spark Allies LLC | Aug 2023 – Oct 2024

- Executed and analyzed data-driven digital marketing campaigns across social media and email platforms, improving **lead generation by 30%**.
- Owned end-to-end campaign performance analysis, transforming raw engagement data into **decision-ready dashboards**.
- Designed automated KPI dashboards using **Excel, Power BI, and Tableau** to monitor traffic, engagement, conversions, and ROI.
- Built automated reporting workflows to refresh datasets and dashboards, **reducing manual reporting effort and turnaround time**.
- Conducted keyword research and SEO performance analysis to optimize content visibility and user engagement.
- Delivered actionable insights to stakeholders through **clear, executive-ready visualizations** and reports.

PROJECTS ([View On GitHub](#))

AIO Hybrid Recommendation System – Movies, Anime & Web Series

- Designed and implemented an **end-to-end hybrid recommendation engine** using Python, FastAPI, TF-IDF, and Sentence-BERT embeddings.
- Collected and unified real-time data from the TMDB API, merging movies, anime, and web series into a single cleaned dataset.
- Engineered rich meta-text features combining titles, genres, overviews, cast, keywords, and taglines to enhance semantic understanding.
- Built multiple vector representations (TF-IDF, Count, Genre, SBERT embeddings) and stored them as **production-ready joblib artifacts**.
- Implemented a hybrid recommendation strategy combining **SBERT cosine similarity (60%) and TF-IDF similarity (40%)** to balance semantic and keyword relevance.
- Deployed a scalable FastAPI backend on Render and integrated it with a **Flutter-based mobile application**.
- Addressed cold-start and data inconsistency challenges using semantic embeddings and robust preprocessing pipelines.

Mumbai House Price Prediction – Full Stack ML Application ([View On GitHub](#))

- Built a **production-ready ML application** to predict residential property prices in Mumbai using structured real estate data.
- Performed extensive data preprocessing and feature engineering, including log transformations, interaction features, and location encoding.
- Trained and optimized **Random Forest and XGBoost regression models**, achieving **$R^2 = 0.80$ and MAE = ₹29.5 Lakhs**.
- Developed a RESTful prediction API using Flask and deployed it on Render for real-time inference.
- Designed and implemented a modern Android UI using Flutter with input validation, dark mode, and Indian currency formatting.

EDUCATION

Master of Computer Applications (MCA) – Data Science & AI (Online)

Manipal College Jaipur | 2024 – Present

Bachelor of Computer Applications (BCA)

Star Infotech College, Ajmer | 2019 – 2022