



# Mayank Joshi

Senior Data Scientist

Senior Data Scientist with 7+ years of experience in building data-intensive applications, overcoming complex architectural and scalability issues in diverse industries. Proficient in predictive modelling, data processing and data mining algorithms, as well as scripting languages, including Python and R. Capable of creating, developing, testing and deploying highly adaptive diverse services to translate business and functional qualifications into substantial deliverables.

✉ joshimayank984@gmail.com

📍 Dubai,UAE

🌐 linkedin.com/in/joshimayank7

📞 +971 0509324639

📄 mayankjoshiai-portfolio.streamlit.app/



## TECHNICAL SKILLS

Python Predictive Modelling Machine Learning Demand Forecasting Deep Learning Gen AI Prompt Engineering  
RAG PEFT Web Scraping A/B Testing Data Visualization Streamlit Frontend Development Looker Studio Tableau  
Inferential Statistics Microsoft Azure Databricks AWS Redshift & S3 Mongo DB SQL R Process Automation  
EMR & EC2 Docker Model Deployment



## WORK EXPERIENCE

### Senior Data Scientist

#### Apparel Group

10/2022 - Present

Dubai,UAE

- **Architected and deployed an intelligent Auto-replenishment engine** for 30+ brands, optimizing and enhancing inventory management. Transitioned from a "sell one, get one" to demand forecast-based replenishment, slashing replenishment frequency from 7 to 2 times a week hence saving transportation cost. **Key Highlights:** Boosted store availability from 75% to 90-95%, resulting in sales uplift of AED 8.6 Million in YTD 2024 and Loss of Sale reduction 15% to 3% while also contributing to AED 600K in labor cost savings .
- **Engineered and implemented a cutting-edge ML-driven Demand Forecasting engine for RITUALS**, a home and body products brand, transitioning from traditional rate-of-sale (ROS) based forecasting to a machine learning (ML) driven approach. **Key Highlights:** This solution significantly reduced human labor employed to gather data, forecast and finalize the buying quantities for each product from 16 hours (2 days) to just 2 hours, and improved forecast accuracy from around 56% to 70-80% for the top 80% of sales-contributing products.
- **Designed and deployed a centralized web platform for Supply Chain solutions** developed by the data science team, including Replenishment, Allocation, Pricing, and Marketing Campaign Targeting. **Key Highlights:** This platform not only provides stakeholders with real-time access to more than 20 key performance indicators (KPIs) but also serves as a confidence-building tool for 40+ brands, fostering trust and increasing the adoption of our solutions.
- **Developed a data-driven campaign management system** using Python, SQL, and ML algorithms that segments customers through RFM analysis and value classification based on campaign objectives. The system optimizes budget allocation across WhatsApp, SMS, and email channels, followed by performance analysis for continuous improvement. **Key Highlights:** Generated AED 4 million in sales through targeted campaigns till date. Achieved 3-5% average conversion rate among targeted customers. Developed customer value scoring algorithms for precise segmentation.
- **Talent Acquisition & Mentorship:** Interview and assess data scientists and engineers, ensuring top talent selection. Post-hiring, mentor and guide team members to efficiently build and scale AI/ML solutions, fostering a high-performance data-driven culture.

### Data Scientist

#### Chalhoub Group

02/2022 - 10/2022

Dubai,UAE

- **Developed an Inventory & Distribution Dashboard on Looker Studio**, integrating data from **BigQuery** to provide top management with real-time visibility into stock levels and logistics. Designed to track **30+ key performance indicators (KPIs)**, including **Inventory Turnover, Order Fulfillment Time, and On-Time Delivery**, enabling stakeholders to assess the overall supply chain performance. Enhanced decision-making with advanced data visualizations and trend analysis, significantly improving operational efficiency.
- **Developed an Automated Inter-Store Transfer Engine** leveraging **Python scripting and probability theory** to estimate product-location sales probabilities. The solution processed **sales data and store & warehouse inventory from BigQuery** across **30+ stores**, optimizing stock redistribution. This automation **reduced store-to-store product consolidation time from 8 hours to just 30 minutes**, significantly enhancing operational efficiency and driving a **2-3% sales uplift**



## WORK EXPERIENCE

### Data Scientist

Maytronics

02/2021 - 02/2022

Gurugram, Haryana

- **Developed a Water Quality Prediction Model** leveraging **XGBoost** with **Python scripting** to forecast **pH, free chlorine (FCL), and algae levels** in pool water. Achieved **85% forecast accuracy** through rigorous **hyperparameter tuning**, ensuring a robust and reliable model. Implemented **data drift detection mechanisms** to maintain model performance over time. Outputs were visualized using **Tableau**, providing users with clear indicators to determine whether the pool water is clean or requires intervention by the water-cleaning robot.

### Data Analyst

Colgate Palmolive Pvt. Ltd.

08/2018 - 02/2021

Mumbai, India

- **Developed a Product Classification Model** using a **Support Vector Machine (SVM)** for **multi-class classification**, mapping local product names to standardized global names. Implemented using **Python scripting**, the solution utilized **TF-IDF and n-grams** for text feature extraction, converting raw product names into structured numerical representations suitable for modeling. Additionally, **Principal Component Analysis (PCA)** was applied to reduce feature dimensionality while preserving key information, optimizing computational efficiency. This approach **reduced task completion time from 8 hours to just 20 minutes** while achieving **88% classification accuracy**, streamlining product catalog management.
- **Developed a Tweet Tracking Module** as a **Python Dash application**, leveraging **Flask** for backend processing and **Twitter API integration** to fetch tweets based on specified keywords. Implemented **TextBlob** for sentiment analysis, categorizing tweets and flagging negative sentiments. This solution empowered the **Social Media Risk Monitoring team** to gauge public perception of **specific product launches and Colgate's overall brand sentiment**, enhancing proactive risk mitigation.



## PERSONAL PROJECTS

### Beauty Products Web Scraping Tool

- **Developed a Web Scraping Tool** using **Python scripting**, leveraging **Scrapy** to extract product metadata and pricing information from **12 different competitor websites**. Processed and structured the scraped data using **BeautifulSoup**, enabling a **Beauty Products company** to monitor competitor pricing strategies. The extracted insights were presented through an interactive **Python Dash application**, allowing for real-time price comparison and strategic decision-making to maintain competitive pricing.

### GPT-3.5-Powered Customer Support Chatbot

- Developed a **GPT-3.5-powered customer support chatbot** using **Python**, integrating **LlamaIndex** and the **OpenAI API** to provide intelligent, context-aware responses. The chatbot utilized **LlamaIndex** to efficiently structure and index internal knowledge bases, enabling accurate and company-specific replies. **Python scripting** was used for backend logic and API communication, ensuring seamless query handling. This solution significantly improved **customer query resolution time**, reducing the need for human intervention while enhancing user experience with **real-time, AI-driven support**.



## LANGUAGES

English

Native or Bilingual Proficiency

Hindi

Native or Bilingual Proficiency



## EDUCATION

### Masters of Business Management (Business Analytics)

Sri Balaji University (2017-2019), Maharashtra, India

### Bachelors of Science

Kerala University (2013-2016), Kerala, India