

ADARSH NAIR

Senior Data Science Manager

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PROFESSIONAL SUMMARY

Senior Data Science leader with 10 years of experience delivering ML-driven marketing analytics and personalization at scale. Proven track record of leading teams building recommender systems, customer segmentation, and forecasting solutions using Python, TensorFlow, AWS, and Kafka. Deep expertise in NLP, time series modeling, feature engineering, model validation, and deploying production-grade APIs with FastAPI.

TECHNICAL SKILLS

Programming Languages: Python, R, MATLAB, Julia, Bash, HTML/CSS, SQL, NoSQL, Java, JavaScript, C++, C#

Data Engineering Big Data: Docker, Redis, Elasticsearch, Apache Kafka, Spark

Frameworks: NumPy, pandas, scikit-learn, TensorFlow, Keras, Seaborn, Plotly, SciPy, NLTK, Gensim, Statsmodels, SQLAlchemy, SpaCy, Scrapy

Statistics ML: Recommender Systems, Time Series Analysis, Linear Regression, Logistic Regression, Random Forest, SVM, KNN, Neural Network, Transformers, PCA, Word2Vec, NLP, SHAP, LIME, BFGS, XGBoost, ARIMAX, Cubature Kalman Filter

GenAI: LLM, Lang chain, Ollama, RAG, Vector Database, Fine-Tuning, Prompt Engineering

Cloud Platforms: AWS, AWS Lambda, S3, EC2, SageMaker, Glue, CloudWatch

Version Control: Git

Others: Tableau, Microsoft Power BI, DOMO, Streamlit, Google Data Studio, YouTrack

PROFESSIONAL EXPERIENCE (10+ YEARS)

Senior Data Science Manager | **Yum! Digital & Technology** | **Remote** | **Apr 2021 - Present**

Promoted to Senior Data Science Manager(Later renamed to Lead Data Scientist) from Data Science Manager

- Led the integration of Large Language Models (LLMs) using Lang Chain to enhance the company's AI-driven customer support.
- Developed and deployed sophisticated NLP models for understanding & generating human-like text.
- Managed a team of 9 data scientists and analysts delivering predictive modeling, **segmentation**, and pricing solutions.
- Led **propensity modeling** to prioritize high-likelihood buyers and guide campaign targeting.
- Built and deployed a **segmentation API** powering marketing workflows and dashboards.
- Presented **findings** to executives and stakeholders, driving alignment and adoption across markets.
- Optimized data pipelines and **model evaluation**, improving reliability by **15%**.
- Led a team of 8 data scientists and analysts to design and implement a **recommendation engine** for personalization.
- Established **KPIs and model monitoring** to track accuracy and business impact, enabling continuous improvement.
- Partnered with marketing, operations, and IT to prioritize **data-driven opportunities** and deliver actionable insights.
- Presented **strategy and roadmap** updates to senior leadership, informing campaign and product decisions.
- Recognized company-wide during town hall for successful **ML platform rollout**.
- Scaled production services with **Docker and Kafka** to support 50ms throughput with high reliability.

Technologies Used: Docker, Customer Lifetime Value, RFM Analysis, Pareto-NBD Model, KNN, AWS S3, DuckDB, Segmentation, FastAPI, Apache Kafka, Spark, Redis, Feature Engineering, Bash Scripting, Model Evaluation and Validation, DOMO Dashboard, TensorFlow Recommender Systems, Python, Keras, LSTM, Sequential Model, NLP, Response Curves, Transformers

Principal Data Scientist | **Kvantum Inc** | **Remote** | **Apr 2019 - Mar 2021**

Promoted to Principal Data Scientist from Senior Data Scientist

- Led a team of 3 to build **market mix modeling** and media optimization capabilities.
- Collaborated with marketing science and engineering to **productionize ML algorithms** and pipelines.

- Developed **optimization strategies** using the BFGS algorithm to maximize ROI across channels.
- Introduced **parallel processing** and **API standards** to enhance scalability by **200%**.
- Improved **knowledge sharing** and documentation, reducing onboarding time by **3 days**.
- Directed end-to-end development and deployment of a **sales forecasting** system for inventory planning.
- Communicated complex **ML and statistical concepts** to non-technical stakeholders to guide decisions.
- Designed dashboards to track forecast **KPIs** and accuracy, enabling proactive improvements.
- Led **integration efforts** during Yum! Brands acquisition, maintaining delivery timelines.
- Earned '**Wave of Happiness Award**' for fostering a collaborative, high-engagement culture.
- Improved workflow efficiency via **automation**, saving **4hrs/week**.

Technologies Used: Cubature Kalman Filter, FastAPI, Kafka, Julia, Python, Redis, RabbitMQ, Elasticsearch, scikit-learn, NumPy, Pandas, MongoDB, EC2, Git, Tableau, Shell Scripting, Google Cloud Engine, SciPy, Optimization, Market Mix Modelling, ARIMAX, Forecasting, Time Series Modeling, Random Forest, XGBoost, R, Model Deployment, Power BI, Seaborn

Data Scientist | Kvantum Inc | Gurgaon | Aug 2017 - Mar 2019

- Built and maintained APIs for **Voice of Consumer** analytics (NLP pipelines).
- Analyzed social data for **sentiment**, topics, and trends to inform ad targeting and messaging.
- Applied **Word2Vec** and dimensionality reduction to extract themes from unstructured text.
- Partnered with product and client teams to translate insights into **recommendations**.
- Recognized as '**Most Reliable Employee**' for consistent delivery and client satisfaction.
- Optimized NLP inference pipeline cutting latency from 320 ms to 120 ms 62% faster delivering quicker Voice of Consumer insights.
- Partnered with teams to translate insights into actions that boosted client satisfaction by 12% within three months across pilot clients.
- Architected data pipelines to enable auto-scaling, supporting up to 3M requests daily with 99.95% uptime during peak campaigns across key client deployments.
- Implemented targeted monitoring and lightweight tests, reducing production incidents by 40% and stabilizing deployment cycles for reliability across all customer projects.

Technologies Used: Gensim, NLTK, Stemming, Memory Profiling, Text preprocessing, Tokenization, Part-of-speech (POS) tagging, Named entity recognition (NER), Topic modeling, Text classification, Word embeddings, Language modeling, Word2Vec, PCA, LDA

Software Engineer 1 | MAQ Software | Hyderabad | Aug 2016 - Jul 2017

- Developed web features leveraging **AWS S3, Lambda, and Elasticsearch** for fast retrieval.
- Collaborated with **architects and developers** to deliver capabilities on schedule.
- Automated document generation workflows and built user support **chatbot** capabilities.
- Enhanced **search indexing** and **query tuning**, reducing page load by 45ms.
- Followed **SDLC** and **code review** practices to increase stability.

Technologies Used: C#, Java, AWS Lambda, AWS S3, Elasticsearch, C++, PowerShell Scripting, Azure Blob Storage, Azure SQL Database, Microsoft Power BI, SVN, HTML/CSS, JS, jQuery, Bootstrap

EDUCATION

Master of Technology, Robotics and Automation | Aug 2016

Indian Institute of Information Technology, Allahabad | Allahabad

ACHIEVEMENTS

- Recognized company-wide in 2024 during town hall for Recommendation Engine rollout.
- Earned 'Wave of Happiness Award' in 2023 for fostering a collaborative, high-engagement culture.
- Recognized as 'Most Reliable Employee' in 2020 for consistent delivery and client satisfaction.