

# Deepesh Kumar Singh

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## Professional Summary

Accomplished technology and analytics leader with over 11 years of experience in driving data-centric solutions and leading high-performing teams in retail, services, and consumer goods. **Expert in developing innovative analytical products from scratch and scaling them to a larger audience to drive business growth.** Proficient in Advanced Analytics and Product Development with a strong track record in scaling infrastructure, automating processes, and improving operational efficiency.

## Professional Experience

### Senior Manager - Analytics & Product

AB InBev, Bangalore

*October 2022 – Present*

- Currently leading a team of 20+ members to **build and scale Resource Allocation Solution to 10 markets**, responsible for hiring, mentoring people, developing the product, and increasing business adoption
- **Architected and led a 40+ member cross-functional team** of data scientists, developers, DevOps engineers, testers, UX designers, and business analysts to develop **CatExpert.ai, a category management application** for store clustering, product assortment, and planogramming, **competing with BlueYonder JDA, Nielsen ASO, and Symphony IQ.**
- Drove **product assortment strategies for 20+ key accounts** (e.g., Walmart, Sainsbury, 7Eleven) across 9 markets, achieving an average **30% complexity reduction and a 5-7% net revenue uplift.**
- Grew **CatExpert.ai adoption from 0 to 150+ users** in under 1.5 years, earning a 3.8/5 external assessment score, winning India's Best AI/ML Product award, and delivering 3,000+ planograms across 5,000+ stores, saving \$1.2M in licensing costs and **generating approx. \$250M** in impact over 5 years.
- Scaled infrastructure and optimized data pipelines using **Azure Databricks and Azure Data Factory**, with architecture validated by Microsoft, enhancing operational efficiency.
- **Led development of AIPHO, a product catalog optimization tool**, reducing portfolio by 5% and scaling to 4 markets, enhancing operational agility, impact of \$150m to bottom line.
- **Skills/knowledge applied:** Optimization, Assortment, Nielsen, IRI, Category Analytics, Similarity-index, A/B testing, DiD, Synthetic Control, Causal Impact, API Development, FastAPI, UX Design, Database, Product Development, Git, CI/CD, MLOps, Leadership, Strategy, Agile, LLM, Streamlit

### Data Scientist / Senior Data Scientist

AB InBev, Bangalore

*October 2016 - October 2022*

- Developed a **store churn prediction model using Logistic Regression deployed on Azure ML Studio**, integrated with an Excel-based API, enabling targeted customer retention strategies and reducing churn rates.

- Pioneered **forecasting capability, building univariate and multivariate models for 1YP, 3YP, and 10YP cycles**, scaling to 20 markets in under 6 months.
- Enhanced daily demand forecasting accuracy from **55% to over 80% using ensemble techniques and the OPERA package**, optimizing inventory turnover and profitability.
- **Built an RShiny-based forecasting automation tool** with 10 models, later rebuilt in **Streamlit**, improving efficiency by 200%.
- Automated a complex 300MB, 15-tab Excel file with Python, publishing results in Looker dashboard, reducing manpower effort by 80% and turnaround time from 10 days to 1 day.
- **Skills/knowledge applied:** K-means, Hierarchical clustering, Genetic algorithm, Optimization, TensorFlow, ARIMA, SARIMA, Random Forest, LSTM, Regularization, Ridge, LASSO, R, Python, Azure Studio, OOPs, DVC, GIT, PowerBI, Dashboard

## Decision Scientist

Mu Sigma, Bangalore

*November 2014 - September 2016*

- Led a 5-member team to **deliver qualitative research** and sales reports for a high-end fashion company, enhancing strategic decision-making.
- **Developed Marketing Mix Modeling** for a pharmaceutical client, optimizing multimillion-dollar marketing budgets.
- Created a Tableau-based tool for sales teams, enabling descriptive analytics and improving resource allocation through predictive forecasting and volatility alerts.

## Certifications

- FastAPI - The Complete Course
- Python Bootcamp - Advanced

## Publications & Public Talks

- Keynote Speaker at Nestlé R&D Digital Hackathon 2025, delivering a session on AI-Powered R&D: How Data Science and GenAI Are Transforming Product Innovation in CPG.
- Understanding Evolutionary Based Genetic Algorithm and Implementation using R || SSRN
- Using Analytic Hierarchy Process to develop hierarchy structural model of consumer decision making in digital market - 2016 || Asian Academy of Management Journal
- Using TOPSIS and Modified TOPSIS Methods for Evaluating the Competitive Advantages of Internet Shopping on Malls - 2016 || International Journal of Business Information Systems
- The High-Quality Low-Price Business Strategy of Samsung Mobile in Penetrating Competitive Market of India || SSRN

## Education

**Integrated Post Graduate [B.Tech + MBA]**

**2009-2014**

*ABV - Indian Institute of Information Technology & Management*