Kushagra Bhatnagar

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Summary

Machine Learning Engineer and Data Scientist with 3+ years of industry experience at Infosys, blending technical expertise in MLOps, LLMOps, and statistical modeling with an MBA background to bridge business and technology. Proven record of delivering production-grade ML pipelines, cloud-native solutions, and generative AI applications that drive measurable business value. Seeking opportunities to design and scale AI-driven systems that solve complex real-world problems.

Core Competencies

- Programming: Python, R, SQL, PySpark
- Machine Learning: Supervised & Unsupervised Learning, Deep Learning, NLP, Model Deployment, Model Monitoring
- MLOps / LLMOps: Azure DevOps, Azure ML Studio, LangChain, Docker, Git, CI/CD, Version Control
- Cloud Platforms: Microsoft Azure, AWS, Databricks
- Data Visualization: Tableau, Microsoft Power BI, Matplotlib, Seaborn
- Other Tools: Scikit-learn, TensorFlow, Snowflake, FAISS

Professional Experience

Infosys May 2022 – Present

Senior Analyst - Data Science / Machine Learning Engineer

- Real-Time Analytics Platform Procter & Gamble
 - Built a self-service analytics platform with Streamlit and LLM integration, reducing insight generation time by 98%.
 - Automated **data storytelling** using **OpenAI GPT** + **LangChain**, enabling business teams to explore Nielsen marketing data without manual intervention.
 - Tech Stack: Python, Streamlit, LangChain, Azure, FAISS, OpenAI.
- Academic Risk Prediction The Open University (UK)
 - Designed and deployed an end-to-end MLOps pipeline in Azure ML Studio with CI/CD, model versioning, and automated monitoring.
 - Achieved 76% recall by fine-tuning ML classifiers on behavioral and demographic data using AdaBoost and PySpark.
 - Tech Stack: Python, Scikit-learn, Azure DevOps, Databricks, Docker.
- Operational Cost Optimization Sweetgreens
 - Identified \$5.4M annual savings by detecting staffing inefficiencies using temporal and spatial store data.
 - Developed **Power BI dashboards** to optimize workforce utilization across **200+ store locations**.
 - Tech Stack: Python, Pandas, NumPy, Seaborn, Snowflake, SQL, AWS, Power BI.
- Generative BI Insights The Coca-Cola Company
 - Integrated LLM with Power BI semantic models to enable natural language queries, reducing manual insight time by 80%.
 - Generated \$200K revenue for Infosys by delivering AI-powered BI solutions.
 - Tech Stack: Power BI, DAX, Python, Azure OpenAI, LangChain.

Selected Projects

Customer Churn Prediction System

- Designed an **end-to-end ML pipeline** to predict telecom customer churn using **XGBoost**, improving recall by 12% over baseline.
- Implemented SMOTE for class imbalance handling and deployed on Azure ML.
- Tech Stack: Python, XGBoost, Pandas, Azure ML, Docker.

Financial News Sentiment Analyzer

- Built an **NLP pipeline** using **BERT** for real-time financial news sentiment classification.
- Integrated with Power BI to create sentiment-driven market dashboards for investment decisions.
- Tech Stack: Python, Transformers, HuggingFace, Power BI.

Retail Sales Demand Forecasting

- Developed a demand forecasting system using **Facebook Prophet** for 1,000+ SKUs, enabling 15% improvement in inventory planning.
- Automated retraining and deployment using Azure DevOps CI/CD pipelines.
- Tech Stack: Python, Prophet, Azure DevOps, Tableau.

Education

Lal Bahadur Shastri Institute of Management, Delhi

Aug 2020 - Apr 2022

Post-Graduate Diploma in Management (PGDM) – **Specialization: Analytics & Finance Relevant Coursework:** Statistics, Machine Learning, Deep Learning, NLP, Neural Networks

University of Allahabad, Prayagraj Bachelor of Commerce

Jul 2015 - Apr 2018