VAISHNAVI VARANASI

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WORK EXPERIENCE

University at Buffalo, Research Assistant- Data Science   *Present*
- Development of scalable data pipelines integrating real-time and batch processing, automating feature extraction and orchestration to transform multi-source raw data into reliable, model-ready inputs for machine learning workflows.

Adani Wilmar Limited (CPG), Assistant Manager- Data Analytics, *Ahmedabad, India*   *April 2023–May 2024*
- Specialized in Data Science and Advanced Analytics delivering end-to-end solutions from use case formulation to technical development and deployment for internal stakeholders.
- Led three impactful projects leveraging statistical modeling and machine learning to drive a 15–20% improvement in sales efficiency, optimize $240K in marketing spend and enhance product availability by 12% across key retail zones.
- Optimized salesmen route planning through TSP-based optimization using K-Medoids clustering and Gaussian Mixture Models, cutting average daily travel by 1.8 miles per salesman and reducing carbon emissions by 2.5kg boosting both productivity and sustainability.
- Designed and executed A/B testing to evaluate two trade promotion schemes across Tier 1 and Tier 2 cities, identifying a clear winning strategy that increased primary sales by 12% and improved ROI by 15%.

Adani Wilmar Limited (CPG), Executive- Data Analytics, *Ahmedabad, India*   *October 2020 –March 2023*
- Worked with SQL, Excel, Power BI, Python and GCP to conduct deep-dive analyses from larger data and develop models supporting sales and marketing initiatives.
- Performed customer segmentation using RFM and K-Means Clustering, enabling targeted retention and replacement strategies. Increased Customer Lifetime Value by 75%, from $68K to $120K.
- Built a real-time Power BI tracker integrated via API with sales systems and enhanced with an AI voice-enabled chatbot for daily updates cutting manual reporting by 80%, reducing issue response time by 40%.
- Worked on data analysis projects including geo-fencing and buying pattern analysis, which identified ~30,000 ghost retail outlets, improving data quality by 15% and enabling more accurate route planning in subsequent projects.

Bennett Coleman and Company Limited (Media), Intern- Data Analytics, *Mumbai, India*   *April 2019–May 2019*
- Applied statistical techniques and time series models (ARIMA, Holt-Winters) to forecast daily newspaper sales.
- Developed forecasting solution and integrated it into interactive Power BI dashboard for leadership use.
- Enabled data-driven sales planning for The Times of India newspaper at key depots in Mumbai, improving forecast accuracy over 85% and streamlining distribution operations across 10+ major depots.

EDUCATION

University at Buffalo, The State University of New York   *June 2025*
  MS in Business Analytics (STEM)
Symbiosis International University, *Pune, India*   *April 2020*
  MBA, Data Sciences and Data Analytics
Sri Indu College of Engineering and Technology, *Hyderabad, India*   *May 2016*
  Bachelor of Technology, Electronics and Communication Engineering

ACADEMIC PROJECT EXPERIENCE

Web Analytics Project: Conversion Optimization for Underperforming Digital Products
- Diagnosed upper and lower funnel drop-offs using the Hierarchy of Effects (HOE) model. Conducted A/B Testing that improved simulated ad CTR by 2.6x, used Regression Analysis to link between trial satisfaction with opt-in rates, simulated RCT to reduce product page bounce rate by 30% and applied Starch Testing to reveal a 24% awareness gap.

Gen AI Practicum: Research Paper Summarizer & Recommender for UB Centre for AI business innovation
- Developed a fully functional web-based AI research assistant using Retrieval Augmented Generation (RAG) and Semantic API integrations. Enabled users to search topics, retrieve academic papers, generate AI powered summaries, and identify UB faculty working on similar topics. Improved research discovery speed by 40%

SKILLS

Python (Pandas, Numpy, scikit-learn, PySpark, TensorFlow, matplotlib, Flask, Beautiful Soup), SQL, Google Cloud Platform (Big Query, Vertex AI), R Programming, Excel, Power BI, Tableau, Generative AI tools (Ollama, RAG pipelines, Gemini, Prompt Engineering, Lang Chain), Microsoft Office suite