AKANKSHA SINGH

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PROFILE

Results oriented data scientist with 4+ years of experience in analytical decision making in retail, sports, technology, and pharmaceutical industries, currently seeking an environment to utilize my skills to facilitate business-oriented outcomes.

SKILLS

- **Languages**: Python (Pandas, Matplotlib, NumPy, Scikit-learn, NLTK, Beautiful Soup, Selenium), SQL, R
- **Tools and Technology**: Machine Learning, Deep Learning (Keras, Tensorflow, LSTM), Git, Airflow, GCP – BigQuery, Excel, @Risk, Minitab, Snowflake, SAS EM, Hadoop, Pyspark, Tableau, PowerBI, Jupyter
- **Certifications**: AWS Certified Cloud Practitioner, Azure Fundamentals (AZ-900), Machine Learning Scientist with Python, Data Analyst with Python, Operations Research with SAS Optimization, SQL Advanced

EDUCATION

Purdue University, Daniels School of Business　　　　　　　　　　　　　　　　**West Lafayette, IN**
M.S. in Business Analytics and Information Management (STEM) (CGPA 3.72/4)　　　　　**August 2024**

SRM Institute of Science and Technology　　　　　　　　　　　　　　　　　　　　**Chennai, India**
Bachelor of Technology in Electronics and Communication Engineering (CGPA 3.8/4)　　　　**May 2019**

PROFESSIONAL EXPERIENCE

Kearney　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　**West Lafayette, IN**
Data Science Intern (Capstone Course)　　　　　　　　　　　　　　　　　　　**Jan 2024 – Present**

- Revamped the existing raw materials forecasting framework for a large welding equipment manufacturer, using a blend of neural networks and time series models, achieving 30% improvement in MAPE across 13,000+ materials

Purdue University
Data Scientist - Krenicki Research Center　　　　　　　　　　　　　　　　　**Nov 2023 - Present**

- Implemented an ensemble of classification models (XGBoost, Random Forest and LightGBM) to predict the likelihood of purchase of brand or generic medicines and explored the application of agent-based modeling to analyze the influences exerted by key stakeholders in the pharmaceutical space for Eli Lilly
- Collaborated with Accenture to harness SAP Signavio and Gen AI for process mining and utilizing Large Language Models to expedite issue summarization and recommendations generation for 800+ processes

Teaching Assistant - Daniels School of Business　　　　　　　　　　　　　　**Jan 2024 - Present**

- Assisted in the delivery and evaluation of Python course at the Daniels business school for 50+ students

Mu Sigma Inc.　　　　　　　　　　　　　　　　　　　　　　　　　　　　　　**Bangalore, India**
Project Manager　　　　　　　　　　　　　　　　　　　　　　　　　　**Oct 2022 – July 2023**

- Led a team of 7 decision scientists, supporting the advanced analytics, business intelligence and digital analytics workstreams of a sports retailer, generating $500,000 annual revenue for Mu Sigma
- Designed a budget forecasting tool for effective and accurate budget allocation by using market mixed modeling and regression techniques across 10+ media channels, leading to an 8% increase in ROAS

Decision Scientist　　　　　　　　　　　　　　　　　　　　　　　　　　**Oct 2019 – Sept 2022**

- Facilitated targeted marketing across customer personas for a retailer by developing an ML-based clustering solution and predicting the likelihood of repurchase with 86% accuracy, using classification techniques such as XG Boost, resulting in an increase in conversion rate by ~14%
- Streamlined the Data Quality Framework across 2 geos by developing an ML driven anomaly detection approach to perform checks against the timeliness, consistency, and accuracy of data on 30+ data sources
- Set up daily automated email alerts using SMTP for proactive notifications of data quality issues and collaborated with the data engineering team, resulting in a 60% reduction in the resolution turnaround time
- Re-engineered campaign performance measurement process using A/B testing and multi-touch attribution techniques for a home improvement retailer, that improved performance measurement efficiency by 30%

ACADEMIC PROJECTS

- **Cryptocurrency Portfolio Optimization**- Built a Neural Network (LSTM) based model to predict the closing rate of 10+ cryptos with an automated framework to buy/sell stocks and optimize portfolio to maximize returns
- **Improving Craigslist Classification System-** Developed an image and text classification methodology using Neural Network and classic ML classification models to reduce the misclassification rate by 31%
- **NCAA predictive analytics -** Predicted consumer's activity type (Primary purchase, Multiple purchase etc.) for Women's basketball tickets using an ensemble of classification techniques with 98.49% accuracy (Kaggle top 10)
- **Data Driven Strategy for Airbnb Ecosystem Optimization-** Predicted 'Superhost' status and subsequent occupancy rates for Airbnb hosts in Chicago. Analyzed market competitiveness using the Herfindahl Index and calculated potential ROI for investors in Chicago