Harsh Baberwal

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PROFESSIONAL EXPERIENCE

Senior Data Scientist, The Nielsen Company, US   Jan 2023 – July 2024

- Maintained and enhanced a data science product that estimated the cross-platform content consumption across the US by fusing together Nielsen's proprietary Linear TV and Digital panels' data.
- Improved the product methodology by developing and productionizing a classification model to predict streaming activity within a household with ~76% accuracy and informing the fusing algorithm with this new information.
- Improved the product's robustness by expanding the standard error calculation for content reach to more granular estimations.
- Reduced the process run-time in production by 15% by optimizing the PySpark code for data processing.
- Ensured product and process quality by conducting impact analyses on upstream changes/revisions, adding new features, making updates to accommodate downstream requests, and resolving occasional production issues to ensure timely delivery.

Senior Decision Science Associate, Axtria, India   Jan 2020 - Jun 2021

- Saved a pharmaceutical client's product brand teams ~$25M by building marketing mix models for multiple products to assess the ROIs of diverse marketing channels and leveraging these for marketing budget allocation to optimize profitability.
- Proved the efficacy of a pharmaceutical conference event by carrying out a test-and-control (A/B) analysis in conjunction with causal analysis, measuring a lift of 5% from physicians who attended the event.
- Enhanced the advanced analytics capabilities of the client by aiding in migrating complex processes from SAS to R with SparkR.

Revenue Analyst, PVR Cinemas, India   Jul 2019 - Nov 2019

- Uncovered the potential to unlock 13% incremental revenue by analyzing the trial data for a novel revenue stream POC.
- Delivered pivotal insights informing executive decision-making processes by conducting thorough ad-hoc and causal analyses.
- Increased the team's efficiency and productivity by streamlining recurring reporting through automation.

Analyst, Absolutdata Research and Analytics Solutions, India   Jul 2017 - Jun 2019

- Drove improvements in digital marketing strategy for a Dutch e-commerce company by developing a k-means customer segmentation model using cookie-level website activity data and profiling the various segments identified.
- Modeled a data pipeline based on comprehensive secondary research for a Nigerian telecom company, enabling the identification of multi-carrier subscribers (~1.6 million). Collaborated on targeted marketing campaigns to capture competitors' share of wallet, resulting in a ~26% increase in revenue from these subscribers.
- Developed a predictive modeling pipeline involving segmentation and classification models to assess creditworthiness and determine credit limits for subscribers of the telecom company, leading to a ~30% rise in adoption of credit line products.
- Informed strategy and supported data-driven decision-making at a US-based perfume company by conducting in-depth analyses on online and in-store sales data, and automating the analytics reports & dashboards.

CORE COMPETENCIES

- Statistical Data Analysis
- Machine Learning & Deep Learning
- Data Visualization & Storytelling
- Data Engineering & DevOps
- Data Product Management
- Stakeholder Relationship

TECHNICAL SKILLS

- **Programming/Scripting:** Python, SQL, git, R, VBA, bash
- **Python Libraries:** Pandas, Numpy, PySpark, Sklearn, Scipy, PyTorch, Plotly, Dash, Streamlit, MatPlotlib, Seaborn
- **Tech Stack:** AWS Services (S3, EC2, & EMR), Spark, Hive, Airflow, Google Big-Query, Docker, MS-SQL Server, Excel

EDUCATION

University of Illinois at Urbana Champaign   Aug 2021 - Dec 2022

Master of Science in Information Management

Delhi Technological University (formerly Delhi College of Engineering)   Aug 2013 - May 2017

Bachelor of Technology in Electronics & Communication Engineering