

Aakash Yadav

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SUMMARY

Dynamic and results-oriented Data Scientist who is proficient in leveraging advanced statistical techniques and machine learning algorithms to extract insights from complex datasets. Adept at translating business requirements into data-driven solutions to drive organizational growth and efficiency. Skilled communicator with a proven track record of collaborating cross-functionally to deliver impactful data-driven insights and solutions.

PROFESSIONAL EXPERIENCE

Data Scientist

Godrej Consumer Products Limited

02/2023 – present

Leading end-to-end data science projects within GCPL's Indonesian operations, overseeing all stages from problem comprehension, data acquisition, logic formulation, iterative development, and impactful deployment. Facilitated seamless cross-functional collaboration, ensuring alignment across diverse teams to achieve strategic objectives with precision.

Tech stack:- Python, Azure Databricks, Mlflow, xgboost, Sarimax, Auto-Arima, Git

- **Demand Forecasting**

- **Developed and implemented end-to-end advanced demand forecasting models** tailored for both the General Trade (GT) and Modern Trade Independent (MTI) channels in the dynamic Indonesian geography, encompassing approximately 2,000 Stock Keeping Units (SKUs) each, collectively constituting approximately **35% (XXX crore monthly sales) of GCPL's total revenue**.
- These meticulously crafted models serve as the cornerstone of the inventory and production planning processes, providing a robust baseline for strategic decision-making.
- Delivered a notable enhancement in forecasting accuracy, achieving a remarkable **~10%** increase for non-promoted SKUs and a significant **~5%** uplift for promoted SKUs, surpassing conventional consensus methodologies.
- Additionally, led seamless collaboration across cross-functional teams to ensure the alignment of strategic objectives with operational execution, thereby optimizing overall efficiency and effectiveness within the organization.

- **Loyalty Target Setting**

- **Developed and implemented end-to-end advanced forecasting models** to derive sales targets for designated General Trade (GT) outlets, integral to the **Loyalty Scheme initiative** in the Indonesian market. This initiative aimed to elevate and sustain the GT market baseline performance.
- Achieved a remarkable enhancement in performance metrics, notably **elevating the Hit rate by approximately 20% and accuracy by around 4%**, while concurrently streamlining target creation timelines by **1 month**, thus fostering greater efficiency and precision in target setting processes.

- **Quantity Purchase Scheme**

- Built a **clustering model** from scratch to recommend the best slab(min-max quantity) for HIT 180/165ml for Indonesia Market for maximizing revenue.
- Currently, in development phase.

Data Scientist

Virtue Analytics

04/2022 – 02/2023

Lucknow, India

- **Market Mix Modelling**

- Optimize **Multi-Million dollar** marketing expenditure of clients across healthcare, CPG and Retail.
- Create **Marketing Mix Models, MROI and Marketing Effectiveness** for each of the clients.
- Provide clients with insightful results and media optimization solutions using advanced statistical and machine learning algorithms such as **Linear Regression, XGBOOST, AdaBoost**.

PROJECTS

M.Tech. Research Thesis

05/2020 – 07/2021

Research Supervisor : Dr Riddhiman Dhar (Asst Professor, Systems Biology Lab., I.I.T Kharagpur, India)

Title:- Neotope - A Machine learning-based model for prediction of B-cell conformational Epitopes.

- Created non-redundant training and testing datasets from scratch of antigen-antibody complexes collected from various databases.
- Around **12 thousand features** were calculated that collectively try to answer the complexity of epitope and non-epitope's nature. Used tree based algorithms such as **AdaBoost classifier** for the classification with **complex-based 10-fold cross-validation**.
- Predictions from the model are better than current state-of-art models whose highest values of Recall, Precision, F1 score, MCC and AUC are significantly lower than our model.
- Presented the findings at an International Conference.

EDUCATION

M.Tech. BioChemical Engineering

2019 – 2021

Indian Institute of Technology Kharagpur

B.Tech. Biotechnology Engineering

2015 – 2019

Kurukshetra University

ACHIEVEMENTS

Indo-US workshop on “Application of Data Science in Biological Systems”, I.I.T Kharagpur.

Presented the findings of my M.Tech. Research Project.

Secured **All India Rank-120** in GATE Biotechnology (2019).

CERTIFICATES

Neural Networks and Deep Learning

Coursera

Intro to Computer Science and Python

Edx

SKILLS

Python and SQL

Proficient in Python and SQL for data analysis and modeling.

Statistics

Strong foundation in statistical analysis and experimental design.

Machine Learning

Extensive experience with machine learning algorithms such as AdaBoost, XGBoost, Gradient Boosting, Random Forests, Decision Trees, Linear Regression, Logistic Regression, Clustering.

Deep learning

Familiarity with deep learning architectures such as ANN, CNN, RNN, LSTM, GRU's, Transformers.

AWARDS

Best Innovator

03/2024

Godrej Consumer Products Limited

For building end-to-end Machine learning pipeline for demand forecasting and also improving the demand forecasting accuracy.