

PIYUSH SHARMA

EDUCATION

- Integrated Dual Degree (B.Tech + M.Tech)

Indian Institute of Technology(BHU), Varanasi
2016 – 2021

CPI – 8.05

SKILLS AND AREAS OF INTEREST

PROGRAMMING

C/C++ Python SQL

AI/ML

DEEP LEARNING NLP LLMs AI AGENTS

DATA ENGINEERING

Airflow Snowflake Pyspark

VISUALIZATION

Looker Studio Streamlit Excel

CERTIFIED COURSES

- Deep Learning Specialization (5 course module) by Andrew Ng (Coursera)
- Machine Learning & Deep Learning A-ZTM; hands on Python & R in Data Science (Udemy)
- Introduction to high-performance computing
- Statistics & Probability

ACIEVEMENTS

- Global Analytics & Insights 2023 Flagship Award (Colgate Palmolive)
- Secured AIR 189 in GATE 2020
- Semi-Finalist in EXL EQ 2020
- Finalist in Pixelate (image processing event at Technex'17)
- A+ score in Machine Learning Event at flipr Hackathon 5.0

WORK EXPERIENCE

Senior Data Scientist – Full Time @ Colgate Palmolive

Colgate Global Data Science and Advanced Analytics

April 2025 – Ongoing

Price and Promotion Analysis (PnP)

- Led end to end **RGM PnP** studies across multiple categories delivering, actionable insights across retail channels; work recognized with the **Global Analytics & Insights Flagship Award (2023)**.
- Mentored a team of Data Scientists and partnered with business stakeholders and cross-functional teams to automate manual Price & Promotion (PnP) workflows, streamlining processes and reducing project completion time by **70%** and turnaround time by **50%**.

Marketing Mix Modelling (MMM)

- Developed an automated pipeline (**Bayesian and OLS models**) to measure ROI across channels (TV, digital, print, trade, and promotions), enabling data-driven budget reallocation decisions.
- Improved marketing **efficiency** by ~ 8% through spend shifts toward high performing channels.

Implementing AI in Commercial Analytics

- Currently Building a **GPT-4** powered **Insight Agent** to enable **natural language querying** of PnP & RGM data, aimed at cutting ad-hoc analysis time from **days → hours** and scaling **AI** driven decision-making across markets

Data Scientist -----PROMOTION----- JULY 2023 – April 2025

Automated RGM and Promo Efficiency Pipeline

- Developed an automated **RGM pipeline** leveraging **Airflow** for orchestration and **Snowflake** for efficient data storage.
- Developed a 6-stage workflow encompassing data preprocessing, feature engineering, competitive analysis, advanced modelling (**OLS and Bayesian**), decomposition of sales (**Promo Efficiency**) and post-modelling evaluation.
- Achieved substantial **time savings** and **scalability**, cutting processing time from **weeks** to a few **hours**. This resulted in the cost savings of more than **\$4 M**.

Senior Analyst, Data Science – Full Time @ Tiger Analytics

Strategic Revenue Management(SRM) – Price Monitoring and Realization

June 2022 – July 2023

Price Optimization

- Build a Price Optimization model for one of the largest **CPG Brands** to improve the financials of both Manufacturer and retailer.
- The Objective was to increase sales while applying various constraints like sales constraint, retailer margin constraint and pack size constraint.
- Recommended Optimized price would result in increased sales of about **\$300 M** with a **MAPE** of **10%**.

Analyst, Data Science -----PROMOTION----- July 2021 – June 2022

Dashboards

- Developed Backend Data for Dashboards to ensure Pricing Compliance and consistent product pricing by tracking near real-time pricing for a **Fortune 500 CPG Client**.

Email Alerts

- Automate the process of monitoring price change/Violations by creating a Notification Email Alert System.
- Performed Data cleaning, aggregation, and feature engineering of various data sources. Implemented using **Azure logic apps**, **Python**, and **pyspark**.

Data Science – Internship @ ZEOTAP, Bangalore

April 2021 – July 2021

- Automated large scale web data extraction (**200+ sources**) using **selenium & scrapy** improving coverage for customer datasets.
- Build **pyspark** feature engineering modules boosting model accuracy by ~12% in online deployment.

KEY PROJECTS

Slope Stability Analysis using Hyperspectral Imaging

Mtech Project under Prof. Tarun Verma (IIT BHU) [July 2020 July 2021]

Breast Cancer Histopathological Image Classification

Yearlong Project under Prof. S.K Singh (IIT BHU) [March 2019 Feb 2020]