

# Abhishek Shukla

Data Science Consultant | CPG Retail Domain Expert | Python | Azure | PySpark | SQL

B.Tech – Indian Institute of Technology (IIT) Roorkee

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Data Science Consultant with 4.5+ years of experience in delivering data-driven solutions across CPG and Retail domains. Skilled in Python, PySpark, SQL, and Azure for building scalable machine learning models, automating big data pipelines, and deriving insights from complex datasets. Proven expertise in pricing promotion analytics, MMM, and stakeholder engagement.

## Experience

### Fractal

Consultant

**Client:** US Leading Petcare Company

**Service:** Revenue Growth Management **Service period:** 3+ Years

Bengaluru, India

September 2020 – Present

- Contributing to an ongoing **Revenue Growth Management (RGM) project**, supporting the client with end-to-end insights on Pricing, Promotion, and Distribution strategies and their impact on revenue. Collaborating on the development and maintenance of 60+ reports and simulators using Power BI, Excel, and React, utilized daily by the client. Working with Nielsen POS data, internal financials, and model outputs to drive data-backed decisions.
- Worked on a robust **Pricing and Promotion Bayesian Regression model** with 40+ features for **predictive analytics**. Over 2.5 years with the client, I contributed to feature engineering of variables such as media variables and panel data (household penetration) to enhance model accuracy. Also responsible for model validation and performance assessment.
- Developed logic and programmed multiple analytics tools** including NPOD, Price Index Traffic Light, Elasticity Tool, Waterfall Tool, Length & Frequency, and Next Best Action Tool. Used **PySpark** to process weekly big data across thousands of **SKUs/UPCs** and 350+ **PPGs**.
- Built pipelines and triggers in Azure Databricks** to automate regular data refreshes. Ensured **version control** and maintained **data quality** using Databricks best practices.
- Utilized **SQL/SSMS** to manage **relational data** for **demand and forecast** tracking across 23+ retailers, including **Walmart**. Collaborated with **full-stack developers** to implement **authentication-based React APIs** for real-time tracking of actualized demand and periodic forecast updates.
- Currently leading the **Demand and Forecast vertical in a client-facing role**. Act as the single point of contact for the client, conduct biweekly stakeholder meetings, and lead daily morning scrum calls. Responsible for task management and delegation across a cross-functional team of data engineers, analysts, data scientists, and consultants.

**Client:** US-Europe Spices and Condiments Company

**Service:** Marketing Media Modelling(MMM)

- Developed a full-scale MMM framework focused on media promotions across Facebook/Instagram ads, Google Search, newspaper ads, hoardings, and more. Built a Bayesian regression model in Excel using advanced Visual Basic (VBA) scripting for better client interpretability.
- Engineered media-specific features such as video length (e.g., 5 sec, 1 min) and influencer presence to evaluate campaign effectiveness. Applied statistical methods to identify high-correlation drivers of revenue and introduced meaningful variance into the model.
- Simulated ROI vs. spend scenarios for planned campaigns, recommending optimal budget allocations based on saturation curves to maximize profit within budget constraints.

**Client:** Prominent Hygiene and Homes CPG company for Australian Market

**Service:** Pricing and Promotion modelling

- Built models to evaluate everyday TPRs (Temporary Price Reductions), Displays, Feature Promotions, and ACV distribution across manufacturer-retailer partnerships.
- Developed an **ElasticNet regularized regression model** (combining Ridge & Lasso) to improve model fit and interpretability. Created “due-to” waterfall charts to decompose base sales and promotional uplift.

- Delivered advanced analytics such as **price change recommendations** based on elasticity, **cannibalization detection** from self-competition, and **price ladder/price gap** analysis to guide pricing strategies.

### **SpeedLabs**

*Machine Learning Intern*

**Indore, MP, India**

*May 2019 – June 2019*

Contributed to AI-based EdTech tools by developing JEE-targeted content, improving UI/UX through feedback, and pitching the platform to schools.

### **Ultratech Cements**

*Research Intern*

**Tadipatri, AP, India**

*May 2018 – June 2018*

Conducted experimental testing to analyze cement strength and consistency across varying Blaine numbers, with data evaluation and reporting in Excel.

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## **Skills and Certifications**

**Programming:** Python, PySpark, SQL, Visual Basic (VBA)

**Data Science & Analytics:** Machine Learning, Predictive Modeling, Deep Learning, NLP, Statistical Modeling, Feature Engineering, Data Cleaning, Data Analysis, Data Storytelling, Simulation Modeling, Automation

**Tools & Platforms:** Excel, Power BI, Azure Data Factory, Databricks, Azure DevOps, Git, SSMS, Figma

**Cloud & Big Data:** Microsoft Azure (ADF, Databricks, Blob Storage), Big Data Processing, Distributed Computing, Data Pipelines

**Certifications:**

- PG-Diploma in Data Science – IIIT-Bangalore
- Microsoft Certified: PL-300 Data Analyst Associate
- Microsoft Certified: DP-900 Azure Data Fundamentals
- NSE NCFM – Investment Analysis & Portfolio Management
- Fractal Certified: SQL Developer | PySpark Developer Associate | Decision Scientist

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## **Projects and Publication**

**Automated Mediator Power Socket, Models and Robotic section(MARS), SHRISHTI, IIT Roorkee**

Built a portable home automation device using Node-MCU and relay modules; enabled remote control and timers via smartphone app. Presented at SHRISHTI'18, IIT Roorkee as part of MARS (Models and Robotic Section).

**Youtube Parser Scraper | Self Motivated**

Developed a Python-based scraper using Selenium and BeautifulSoup to extract video metadata (titles, views, comments, durations) and store it in a structured format.

**Fractal's Top 20 | Fractal.ai**

**Star award - Kaizen | Fractal.ai**

**3rd Position in FSL Chess tournament | Fractal.ai**

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## **Education**

**Indian Institute of Technology, Roorkee**

*B.Tech. Metallurgical and Materials Engineering*

**Roorkee, Uttarakhand, India**

*July 2016 – June 2020*