

# Syed Misbah

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[medium/data-decoded](https://medium.com/data-decoded)

## CPG, Retail, Manufacturing, Energy, Supply Chain, Airlines

### Lead Data Scientist – Evalueserve

Mar '21 – Present

- **Leading** a team of **22 data scientists** for multiple engagements across retail, food and beverage and energy sectors
- Manage **multiple concurrent initiatives** and projects of varying sizes/complexities and external vendor relationships, developing, coordinating and maintaining program and project milestones
- Improve pre-existing **models and algorithms** that affect the bottom line of the organization
- Designing & developing the data infrastructure for entire DIPP lifecycle for a **\$10bn** organization – which included data harmonization, descriptive analytics and predictive modeling POC and production stack
- Overhauled the **MLOps** pipelines for three clients – migrated from archaic legacy deployments to microservices based loosely coupled data infrastructure.

### Senior Data Scientist – Mu Sigma Inc.

Aug '19 – Sep '20

#### SALES FORCE PLANNING & OPTIMIZATION | RUSSIAN PETCARE MANUFACTURER

- **Leading a team of 6 analysts in a \$1.3MM** engagement to build a sales force planning and optimization tool to maximize sales uplift or ROI and reduce expenditure
- **Clustered** outlets, measured impact of visits using a **regression** model and designed a **Mixed Integer programming (MIP)** based optimizer to generate visit plans
- Developed a planning & reporting tool using **PowerApps** to design plans and report results
- Impact of ~3% incremental **sales uplift(+ \$6.2MM)** and sales force expenditure **reduced by 24%(\$0.5MM)** – and savings of **960 hours/quarter effort**

#### STRATEGIC REVENUE MANAGEMENT | US CPG GIANT

- Created a **sales driver model** for attribution of sales volume to key imperatives for around ~5,000 products with **MAPE <20%** using ElasticNet regression
- Developed a **Trade Promotion Optimization (TPO)** framework which enabled the Account teams to design optimized promo plans leveraging **Seasonality, Promotional Pricing, Promotional Execution, Product Distribution, Co-promotion and Cannibalization with inter and intra competitors** for a win-win scenario with Retailers - leading to reduction of ~2100 hrs. of manual effort/quarter
- Developed a tool in **PowerApps** atop the sales driver engine, to scale insights generated and unlock potential across all products and retailers in the US - **unlocking potential value of ~\$7MM/year**
- The tool is powered by a **linear optimizer** on the sales driver model & builds a **52-week calendar** detailing optimal price points, ideal promotion weeks, and optimal execution distribution points

### Data Scientist - Mu Sigma Inc.

Aug '17 – July '19

#### COMPETITOR CLASH FORECASTING | US CPG GIANT

- Developed a Competitor Clash Forecasting framework to help **account managers design promotions** in accordance with forecasted competitor prices
- The framework uses **Holt Winter** models to forecast the prices of competitor products and uses these prices to predict manufacturer and category sales through a **regression-based sales attribution** model
- Built a dashboard in **PowerBI** for account managers to negotiate with category buyers to take data driven decisions to maximize sales considering ROI & retailer margin
- **30% reduction** in negotiation time and sales uplift of **2%(\$3.6MM)** across four retailers in six months

#### VIDEO OCCASION DETECTION & CLASSIFICATION | US CONSUMER DATA PROVIDER

- Implemented **CNN based YOLO object detection algorithm** for a video occasion detection tool – to detect the class and number of objects present in a scene – **mAP 51.5%**
- Built a **XGBoost** model to **classify a scene into consumption, transaction or celebration** based on the class and number of objects detected by YOLO – **Accuracy 87% / AUC 0.82**

## SKILLS

### Code

Python  
PySpark  
R  
SQL  
OR-Tools

### Tools & Viz

Jupyter  
Azure & DevOps  
PowerBI  
Neo4j  
Powerapps

### Analytics and Math

- **Statistics** - Hypothesis testing & experiment design
- Exploratory Data Analysis
- **Regression** (Linear and non-linear tree based)
- **Classification** (Logistic, Decision Trees, Ensemble – random forest/ XGBoost)
- **Time Series Forecasting**
- **Convolution Neural Networks**

### Business

- Problem Solving
- Story Boarding
- Agile Management
- Stakeholder Management

## ORG INITIATIVES

### Mentorship

- Project mentor - 12 junior analysts
- Python tutor - 20-member team

### Trainer

- Trainer for internal teams on modeling and CPG Industry – trained 130 new inductees

## HONORS

### Awards

- 2 SPOT awards for technical capability, leadership and accountability
- Academic Excellence Award - 2017

**Certification:** Decision Sciences - Certified by Mu Sigma for problem solving and analytical skills

## EDUCATION

### Bachelor of Engineering

Instrumentation Technology  
Visvesvaraya Technological University  
BIT, Bangalore | 2017

**First Class with Distinction**

### Secondary Education – CISCE

XII - 85% | X : 88%