

Syed Misbah | Data Science & Engg. Manager

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~7 YOY in AI / Machine Learning | Marketing, TV/OTT, CPG & Retail, Airlines

DISH NETWORK - DATA SCIENCE & ENGG. MANAGER

Nov '21 – Present

- AI/ML leader at **DISH India** - Impact of **\$3.5M+** in revenue & savings, **saved 380 hrs. / qtr.** in effort
- Identified, converted & **delivered** high ROI opportunities to **boost leadership's confidence** in AI/ML
- **Built & developed a talent pool of 15+** people to tackle more significant & high-impact challenges

GEN AI – LLM ChatBot (RAG / PEFT / DPO)

- Developed a chatbot using **RAG** and **LangChain** for querying Confluence documentation of tech teams; uses **LLama2 7B** as the base model, **ChromaDB** vector store and **FAISS** for similarity search
- Experimented with **PEFT (LoRA/QLoRA)** based fine-tuning - but no significant improvement over RAG
- Currently finetuning on **Mixtral MoE 8x7B** Model using Direct Preference Optimization (DPO)

Market Mix Modeling (MMX)

- Successfully developed & deployed a MMX solution which **manages \$230M/yr.** across **17 channels**
- Uses a combination of **ridge regression-based attribution model** and non-linear optimization
- **2.4% lift in activations** compared to BAU allocation—**reduced SAC by 4.8%**

Dynamic Creative Optimization (DCO)

- Built the DCO solution for serving dynamic creatives to prospects, optimizing elements in real time
- Developed the **ML web service** using AWS Lambda, DynamoDB, API Gateway & CloudFront – which stitches and delivers creatives (**HTML/JS Zip bundle**) to ad serving platform (**Flashtalking**)
- Implemented **Bayesian Bandits** for continuous optimization of elements towards higher CTR
- **~39% CTR uplift, 0.9% acquisition uplift**, and savings of **290 hrs./qtr. Effort**

AI Smart Bidding Platform

- Developed the **Smart Bidding Algorithm** which optimizes for spend on high ROAS patterns (**-17% SAC**)
- Led **MTA (Multi Touch Attribution)** initiative to enable holistic view of channel ROAS
- Built **subscription & viewership forecasting** model > led to **+0.12 AUC** for downstream churn models

EVALUESERVE - LEAD, DATA SCIENCE

Mar '21 – Oct '21

CUSTOMER CHURN PREDICTION | Garden Products Manufacturer

- Modeled **customer churn** using ensemble Random Forest and XGBoost classification models
- **Improved AUC from 0.78 to 0.91** using feature engineering and hyper parameter tuning
- **Improvement of 31.4%** in retention rate compared to previous heuristics-based solution

MU SIGMA INC. - DATA SCIENTIST

Aug '17 – Sep '20

Sales Force Planning & Optimization | Russian Petcare Manufacturer

- **Led a team of six data scientist** to build a sales force optimization tool to **maximize sales uplift & ROI**
- **Clustered** outlets, measured **impact of visits** using regression & generated **optimized visit plans**
- **~3% sales uplift(+\$6.2MM)** and expenditure **reduced by 24%(\$0.5MM)** –savings of **960 hrs./qtr. effort**

Strategic Revenue Management | US CPG Giant

- Created a **sales driver model** for attribution of sales to key drivers with **MAPE <20%** using ElasticNet
- Developed a **Trade Promotion Optimization (TPO)** framework which enabled client to design optimized promo plans leveraging **Seasonality, Pricing, Execution, Distribution, Co-promotion & Cannibalization**
- Powered by a **linear optimizer** atop the sales driver model - **unlocked potential value of ~\$7MM/year**

Competitor Promo Clash Forecasting | US CPG Giant

- Developed a promotion clash forecasting framework to help **account managers time promotions**
- The framework uses a combination of **time series forecasting & attribution** models
- **30% reduction** in negotiation time and sales uplift of **2%(\$0.9M)** across four retailers in six months

SKILLS

Stack

Python	AWS Stack
R	Dataiku
SQL /DynamoDB	Neo4j Graph DB
OR-Tools	Tableau / Power BI

Core Areas

- **Statistics** - Hypothesis testing, ANOVA & experiment design
- **Regression** (Linear / Tree based)
- **Classification** (Logistic, Decision Trees, Ensemble – random forest/ XGBoost)
- **Time Series Forecasting**
- **Deep Learning** - Language Models
- **AWS Services** for ML services deployment using API Gateway, Lambda, Glue, Athena, S3, Sagemaker

LEADERSHIP

AI/ML Center of Excellence

- Establishing AI/ML COE – which serves as the central team for driving data culture at DISH India and Tech
- Training executive leadership team on evangelizing data & AI / ML

Mentorship and Support

- Mentor for 2 senior and 1 Junior DS
- Cross functional ML solution engineer for hardware engg. and ad-tech team

EDUCATION

Bachelor of Engineering, IT

Bangalore Institute of Technology
VTU | 2013 - 2017

**First Class with Distinction
Academic Excellence Award**

Secondary Education

Carmel Junior College, CISCE
2012 – XII : 85%
2010 – X : 88%

HONORS & AWARDS

- **3 spot awards** for technical capability & **2 impact awards** for leadership & accountability