

# Syed Misbah

## Data Scientist

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### ALGORITHMS

#### CORE ML

##### Regression

- Linear/Poly/SVR/L1/L2
- ElasticNet/LARS/MARS

##### Classification

- Logistic / Naive Bayes / SGD
- K Neighbors/SVM/DTrees/RF

##### Clustering

- KMeans / KMode / VBGMM
- Spectral / Hierarchical / DBSCAN

##### Forecasting

- ARIMA(X)/HW/UCM/GAM

##### Reinforcement & Association

- UCB/Thompson Sampling
- Apriori/Eclat

##### Dim. Reduction, Optimization & Ensemble

- (k)PCA/LDA/LLE
- Linear/Constraint/Integer Prog.
- Boosting/Bagging/GBM

#### DEEP LEARNING

- Image Models - ConvNets (CNN)
- RNNs/LSTM/GRU
- AutoEncoders
- Deep Boltzmann Machines
- Generative adversarial networks

### STACK

#### CODE

- Python • R • SQL
- Scala-Spark

#### FRAMEWORKS

- Tensorflow • Keras
- scikit-learn • pandas

#### VISUALIZATION

- Tableau • Excel

#### INTEGRATION

- DevOps • Docker + Kubernetes
- Cloud - • Azure • AWS
- VCS - • Git
- DB - • Postgres • Neo4j

### HONORS

#### AWARDS

- 3 SPOT Awards
- Academic Excellence Award

#### CERTIFICATION

- Decision Scientist

### EXPERIENCE

#### MU SIGMA INC. | DECISION SCIENTIST

August 2017 – Present | Bangalore, IN

#### U.S. BASED CPG MANUFACTURER | STRATEGIC REVENUE MANAGEMENT

- Built a framework that identifies key drivers of sales and feeds into an optimization engine which generates the right price mix across portfolio.
- Identified the most important parameters of in-store execution and built a prioritization engine which recommends the stores the auditors need to focus on, reducing \$990k in audit investments, and +30% efficiency
- Designed, developed & deployed a Clash Negotiation Tool which forecasts competitor prices and helps NAM's design promo plans which are win-win for both manufacturer & retailer, leading to 1000 hrs/NAM reduction in time

#### GLOBAL BEVERAGE & BREWING GIANT | PROMO OPTIMIZATION AND MARKET PENETRATION ANALYSIS

- Developed a Trade Promotion Optimization(TPO) tool which minimizes the investment & maximizes for revenue/share/profit across entire product portfolio - leading to a \$3.5mm reduction in trade investments and 1.3% bottom-line growth
- Led a 4 member team on the back-end development of a video occasion detection tool which classified consumption of beverages by occasions - leveraging deep CNNs

#### U.S BASED SPORTS BROADCASTER | DIGITAL FINGERPRINTING

- Designed and developed a graph database(Neo4j) based digital fingerprinting system which identified unique users across anonymous devices using static and behavioral attributes
- Classified unidentified users coming from new IDs into returning or 'new-to-platform' category
- Reducing advertising expenses by \$2.3mm by reducing the number of individual users that needed to be targeted.

### RESEARCH & INTERNSHIP

#### INDIAN INSTITUTE OF SCIENCE Sep 2016 - Feb 2017

- Extract roads and power-lines from aerial images using CNN for use in NAVIC

#### TINPLATE COMPANY OF INDIA July 2015

- Designed & deployed an automated PID controller to regulate coil thickness

### EDUCATION

#### BANGALORE INSTITUTE OF TECHNOLOGY, VTU

B.E in Electronics and Instrumentation | First Class with Distinction | '13 - '17

#### CARMEL JUNIOR COLLEGE, ICSE

• XII - 84.5% • X - 88.2% | Grad. 2012 | PCM + Comp. Sci.(Data Structures & Algo)

### INTERESTS

- Qual. Private Pilot license • Track Racing • Algo Trading • Golf • Blogging