# **DISHA SHAH**

M.TECH | DATA SCIENTIST

## CONTACT

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## SKILLS

- Python
- Power BI
- Machine Learning
- Time Series Analysis
- Data Mining
- Deep Learning
- Artificial Intelligence
- R programming
- SQL server
- Mongo DB
- Docker
- Team Management
- Tableau
- WEKA
- IBM SPSS Statistical Software

## WORK EXPERIENCE(6.3 YEARS)

## **Data Science Specialist**

Hindustan Unilever Pvt. Ltd. (Mumbai)

NOV 2020 - PRESENT

#### 1. Price Tier Evolution Forecasting:

- Developed scalable predictive modelling technique to define the relevant drivers followed by an econometric regression analysis at aggregate market level.
- For all the four price tiers (Value, Mainstream, Premium, and Super-premium), share of volume has been modelled by using Multi-level modelling techniques.
- Developed LSTM (Long Short Term Memory) and GAM(Generalized Additive Model) for the following business:
  - 1.Brand positioning & Volume expectations
  - $\hbox{2.Changes in each price tiers based on changes in macro-economic \& shopper \ variables}$
  - 3. Focus on which price tier due to its likelihood of growth
- Outcome of the forecasting are sales forecast trend and Drivers' uplifts.

#### 2. Time Series Forecasting:

- Business Winning scalable approach to project monthly share change.
- Developed time series SARIMAX model for monthly seasonality and annual downward/upward movement.
- Validated actual vs. predicted UL L12W and MAT share change direction.
- Developed time series forecasting for 483 cells (country + category).

#### 3. Marketing Mix Modelling (MMM):

- Modelling approach that quantifies the impact of marketing drivers on sales and enables investment optimization.
- Developed Multiple linear regression algorithm to identify the most effective channel (Price, Promotion, Distribution and Media) to achieve maximum returns (ROI).
- Dynamic mix optimization strategic is used to differentiate between base and incremental sales.
- Brand Power represents the ease with which a product or brand comes to mind for a consumer which in turn gives us a prediction of the brands volume share.
- The results from MMM enable fact-based decision-making, which leads to more effective spend, driving greater growth.

### Analytical Advisory Analyst Accenture Solutions Pvt. Ltd. (Mumbai)

JAN 2019 - NOV 2020

### 1. Telecom Industry

- Implemented Customer Sentimental Analysis for Telecom Products using Python Jupyter Notebook and visualization is done using Power BI tool.
- Performed data gathering, data pre-processing, feature engineering and modeling for analyzing the customer sentiments.
- Managed and guided the team members to meet the timelines.
- Identified the revenue leakages for combined billed products by using Lavastorm tool.

## 2. Retail Analytics

- Implemented Parallel Processing of data in R by using "Parallel" Package to decrease processing time of millions of data and to increase the model efficiency. Code is parallelized by Socket approach i.e. PSOCK
- Implemented forecasting models like Trend Decomposition, UCM, XGBoost and Prophet and compared the performances to predict the inventory of each store using pre-season and In-season planning.
- Forecasted time series data based on an additive model where non-linear trends are fitted with yearly, weekly, and daily seasonality, plus holiday effects or large events that impacts business time series.

# DISHA SHAH

## M.TECH | DATA SCIENTIST

## EDUCATION

# M.TECH in Computer Science (2015-2017)

NMIMS, NMIMS University 3.95/4 CGPA

## B.E. in Information Technology (2009-2013)

Thakur College, Mumbai University 74%

## HSC (2009)

T.P.Bhatia, MSBSHSE 75%

## SSC (2007)

St.Lawrence High School, MSBSHSE 80%

## A C A D E M I C P R O J E C T S

## Prediction of Cardiovascular Diseases using Data Mining

 Description- Prediction of heart diseases using machine learning techniques like SVM, Naïve Bayes, Logistic Regression and Neural Network.

# 2. VOIP (Voice Over Internet Protocol)

 Description-VOIP exhibits chatting, video chatting/conferencing, whiteboard sharing, screen sharing between two users on LAN.

#### 3. Shell CRM

- Performed data pre-processing for Post campaign analysis(PCA) by sampling the data further to reduce processor running time and memory requirements and implemented standard and an adhoc queries from 11 different markets.
- Implemented Random forest technique for selecting fields from the data that are relevant to clients queries and calculated KPI's like uplift,ROI,C3,C5.
- Implemented Logistic Regression for predicting the future customer churn by building the model that relates the behavior of customer before the churn happened to the responses of the customer already have churned.

## Machine Learning Engineer Powerweave Software Services Pvt. Ltd. (Mumbai)

JUL 2017 - DEC 2018

### 1. Marketing Automation

- Developed recommender system using Collaborative Filtering like User-based and Item-based CF.
- Developed a rule based machine learning method called association rules for product personalisation.
- Developed Apriori algorithm for generating association rules in recommendation system.
- Developed evaluation of the recommender engine using statistical accuracy metrics.
- Optimized the performance of recommender system through re-learning mechanism.
- Worked with database team on integration of recommender with mailchimp and google analytics reports.

### 2. Fintech Strategy Application

- Developed financial strategies like Mean Reversion, Pair's Trade, Asset Allocation, Commitment of Traders (COT), Commodity Momentum, Weekly Option Trade, Agreement in Moving Averages etc. on Equities, Commodities & Options.
- Integrated API's from various financial sources and developed strategic insights for stock markets.
- Worked with the outsourcing team on UX/UI designs and its integration with RYPE application.
- Ensured quality standards are maintained as per organization's policy by conducting Self & Peer reviews.
- Conducted transfer of technical and domain (business) knowledge to team members.

### 3. Time Series Forecasting for Mondelez International Inc.

- Developed a procurement strategy for Cadbury, a subsidiary of Mondelēz International Inc.
- Developed a univariate time series models like Autoregressive Integrated Moving Average (ARIMA) to make predictions on the future time points.
- Developed time series modelling on a volatile commodity like Cocoa to manage risks and control the impact of fluctuating prices.

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## M.TECH | DATA SCIENTIST

## TECHNICAL PUBLICATIONS

### 2017

Published and presented research paper in International Conference & Workshop on Electronics & Telecommunications (ICWET),

#### **MULTICON-W**

### 2016

Research paper published in IJCA (International Journal of Computer Applications), "Prediction of Cardiovascular Disease using Support Vector Machine and Bayesian Classification".

#### 2016

Received a Certificate of Acceptance from International Journal of Scientific & Engineering Research(IJSER), for accepting the Review

paper-"Classification Methods for Prediction of Cardiovascular Diseases".

## Data Analyst (Internship) Tracon Export Services Pvt. Ltd. (Mumbai)

SEP 2016 - FEB 2017

- Managed and worked with a team of Data Analyst.
- Developed data pre-processing methods like Binning, Clustering, Linear Regression to remove noisy data, missing values and outliers.
- Tableau Software was used to analyze, visualize and predict data for textile products.

## Design Engineer Team Engineers Pvt.Ltd (Mumbai)

OCT 2013 - JUN 2015

- Developed layouts, diagrams and technical specifications using CAD software.
- Coordinated with the clients for design specifications.
- Managed and worked with a team of Design Engineer's for testing the project on client side.
- For deployment of project, assisted and reviewed the work done by team members.

## CERTIFICATIONS & A W A R D S

2021-Certificate of completion of "The Complete Power BI Practical Course" Udemy Business

2021-Certificate of completion of "Estimating Sales Trends with Regression" Accenture Academy

2021-Certificate of completion of "Improving Marketing Mix Decisions"
Accenture Academy

#### 2018-Rising Star award

Rewarded by CEO (Powerweave Software Services Pvt. Ltd)

2017-Certificate of Honour (First Rank in Master of Technology)
Rewarded by Dean Dr. N.T.Rao (NMIMS)

2017-Certificate of Merit and Gold Medal (Master of Technology)
Rewarded by Dean Dr. N.T.Rao (NMIMS)

2016-Distinction Certificate in online Statistical Learning Stanford university

2016-Certificate of Foundation Program

Infosys Campus Connect (NMIMS)

2013-Certificate and a medal (Topper in B.E. in I.T.)

Persistent System Ltd, Pune