



# Umang Mahant

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A Data enthusiast with 3+ years of experience in Data Science, Analytics, consulting etc. supporting business domains like – Insurance, Health care, Sales. Involved in Python open-source community and passionate about deep reinforcement learning, targeting assignments as **Data Scientist/ Machine Learning Engineer**  
**Target Location:** Mumbai, Pune, Hyderabad, Bangalore

## PROFILE SUMMARY

- **An enthusiastic professional with nearing 4 years of experience** in implementing machine learning Techniques
- Strong understanding of the **Machine Learning lifecycle**, feature engineering, training, validation, scaling
- Engaging with **stakeholders** to produce clear, compelling, and actionable insights that influence product and service by creating interactive **dashboards** using **Tableau**
- Strong acumen in Data Exploration, **Data Treatment/ Processing** for efficient model performance and stability
- Worked with **Statistics** Methods-Hypothesis Testing, understanding **Distributions**, Sample tests, **ANOVA**, **Market Basket Analysis**, **RFM**
- Proven skills in **predictive modeling** using various Machine Learning Models **ANN**, **Classification**, **Regression**, **Clustering**
- **Managed a high-volume workload** within a deadline-driven environment and gained trust from clients and higher management
- Day to day activities included dealing with **Data Visualization** using **Tableau**, **Seaborn**, **Matplotlib**
- Developed and maintained **Live dashboard** with **ELK stack - Kibana**
- Strong experience on programming languages such as **Python**, **Visual Basic /VBScript** (Excel), **SQL**
- Excelled in gathering and understanding requirements of clients
- Organizing multiple meetings for various discussions such as **Feature selection** with the **Subject matter experts**
- Exposure in generating **KPIs**, selecting methods and techniques for obtaining results for business growth

## CORE COMPETENCIES

IT Project Delivery	Machine Learning Lifecycle	Statistical Analysis
Database and Technical Skills	Client Interactions	Data Visualization
Requirement Gathering	Problem Solving	Domain – Healthcare and Insurance

## WORK EXPERIENCE-SUMMARY

**Since Mar'20-Present as Data Analyst at Allianz, Pune**

**Key Result Areas:**

- Collaborate with a team of data scientists and engineers to embed analytics into the business decision processes.
- Pre-processing, Cleaning data along with statistical analysis and machine learning models to predict fraud claims
- Highlight findings to business stakeholders and contribute to weekly meetings with the management team

**Result:** Model predicted Fraudulent claims with an accuracy of 88% after solving imbalance data issue and Feature Selection

**Aug'17-Jul'19 as Associate Consultant II at Atos, Pune**

**Key Result Areas:**

- Customer Analysis and segmentation to target groups with customized product promotions.
- Identify and interpret trends or patterns in complex data sets, to recognise similar customer batches to enhance customer experience, prevent customer Churn resulting in effective business growth.
- Using RFM and clustering model outputs for micro-segmentation for detailed analyses to develop KPIs

**Result:** The machine model could classified churn customers with 82% accuracy and could generate a benefit of \$4,319 with only 5,000 sample cases

**Highlights:**

- Esteemed by **KUDOS International Award** in 2018 for outstanding performance at Atos Company
- Bagged **SPOT Award** for **outstanding performance during client visit** in 2018
- Received the **SPOT Award** in 2019 for being an active team player and **critical on-time delivery**
- Awarded with **ASHWA SPOT Award** for excellent performance as a new hire in 2020

## IT SKILLS

Statistics and Probability		Hypothesis testing		Data Visualization		Data Analysis
Market Basket Analysis		Machine Learning Models		Predictive Analysis		RFM Analysis
Ensemble models		Artificial Neural Network		Clustering	PCA	AdaBoost
Tableau	Visual basic	Python	VBScript	Oracle SQL	Java	

## INDUSTRIAL PROJECTS

**Employer:** Atos, Pune

**Period:** Aug'17-Jul'19

**Project:** Customer Analysis and Segmentation

**Tools:** RFM, unsupervised learning, Clustering (Partitioning, Hierarchical), K- means, Tableau

### Description:

- Project's main goal was to truly get to know its customer base for **tailored customer relationship management** and identify sources of **growth by customized product promotion on homogeneous groups**.
- **Demographic, transactional and Health** Data of historical customers was extracted from multiple **SQL** tables. A Total of 2.3 lakh customer details with 17 features data was structured for Benefit Segmentation Analysis.
- Initially with **RFM matrix** customer bins could be interpreted and then **micro-segmentation** was done using mined data and cluster Partitioning techniques like **K-means**. Clusters were visualized with **PCA**- 91% variance was covered.
- **Key Performance indicators** were identified such as **Top claim categories** (monetary and volume) per cluster, Changes in **Coverages**, Rate of increase of **premiums** per cluster, **Churn** Probability per cluster

### Project: Customer Churn Prediction and Retention

**Tools:** liner Regression, Classification, Feature selection, EDA, SQL, Python, RFM, ANN

### Description:

- Data with a total of 4.5 lakh customer details with 19 features. Post Identifying opportunities for improvement in data cleansing, Pre-processing, EDA was performed to obtain few insights concerning churn customers.
- **Bootstrapping** was used to create 3 samples of Churn to Not churn ratio 80:20, 70:30, 50:50 with train-test as 70:30 each
- **Logistic regression** and ANN performed almost evenly well, but only logistic regression model provides insights in the variables which are important to predict customer churn and develop retention techniques

**Employer:** Allianz, Pune

**Period:** Aug'19-Present

**Project:** Detection of Fraudulent Insurance claims

**Techniques:** EDA, Data analysis, Ensemble models (Boosting, Bagging), Random Forest, AdaBoost, IHT, SMOTE

### Description:

- Working with structured data with 273 features and 4.92 lakh records with a proportion of 0.8% fraudulent claims.
- Contributed to **Data Processing** by treating missing values, outliers and imbalance using **SMOTE, up-sampling** since the proportion of data was a major issue for model performance.
- **Feature selection** was done by consultation with subject matter experts. 70-30% ratio for Train-Test Split
- Performed **Cross validation** on models like **Random Forest** resulted in 81% accuracy and **recall** of 0.68 which was enhanced using **IHT technique** and **AdaBoost** to **accuracy 88%** and **recall of 0.81**

## ACADEMIC DETAILS

- **Distinction** in **B.E. (Computer Engineering)** from **AISSMS IOIT**, University of Pune in **2014 - 2017**
- **First Class** in **12<sup>th</sup>** from **N. Wadia**, Pune, Maharashtra State Board in **2012 - 2013**
- **Distinction** in **10<sup>th</sup>** from **St. Anne's Convent**, Pune, Maharashtra State Board in **2010 - 2011**