**Satyanarayana Nedunuri, Ph.D**

**Mobile: +91 9849865665 | Email:** [**satya.sas@gmail.com**](mailto:satya.sas@gmail.com)

|  |
| --- |
| **Profile Summary** |

Having over 17 years of experience in to project delivery in IT industry as a hands-on project manager in managing Data Science, Analytics, Development and Testing teams with good exposure to various industry portfolios like Consumer Banking, Mortgage Finance, HealthCare and Insurance domains

|  |
| --- |
| **Project Management Skills** |

* 15 years of hands-on experience on various statistical/analytical/AI/ML/NLP tools and techniques with Consumer Banking, Home loans, HealthCare and Insurance domains
* 8 years of experience as Project manager delivering end to end Analytics and Data science solutions in BFSI and Healthcare industries
* 8 years of experience in Project planning, Budget planning and allocation and hiring and attrition management in collaboration with US counterparts/stakeholders

**Responsibilities**:

* Planning, Leading, Organizing the project deliverables that leads to high performance and quality of the project outcomes
* Manage multiple projects from Client’s project portfolio
* Ability to prioritize project needs across multiple clients
* Communicating effectively with stakeholders and other team members
* Ability to work in team in diverse, fast-paced Agile environment in flexible customer time zones

**Technical**: Hands-on experience in Data Science/Management projects especially managing Analytics/Business Intelligence deliveries with multi-functional teams.

**PM Tools**: MS Project, MS Office Suite, JIRA, Confluence

|  |
| --- |
| **AI/ML Skills** |

* Thought leadership and provide required technical expertise to deliver sophisticated stochastic and statistical models needed for detection and prevention of customer default, risk behaviour and hence Campaigns and Collections strategy enhancement
* Excellent Knowledge of Supervised and Unsupervised Machine learning algorithms such as Logistic, k-NN, Naive-Bayes, SVM, Decision Trees, Random Forests, NLP and NN
* Good technical expertise in programming languages and common data science toolkits, such as SAS, SQL, Python, R, NumPy, SciPy, ScikitLearn and Pandas
* Experience in applying ML/AI Algorithms and Libraries like ScikitLearn / Keras/ TensorFlow ML libraries on Unstructured to Structured data
* Strong understanding of the Machine Learning lifecycle - feature engineering, training, validation, scaling, deployment, scoring, monitoring and feedback
* Developing and creating Data visualizations and BI dashboards using Tableau/Alteryx to derive insights from data
* Develop and execute Business Strategies to develop solutions and offerings to drive revenue in BFSI and Healthcare analytics
* Work closely with leadership in devising strategy for pioneering and implementing advanced analytics methods to identify and solve business problems
* Part of the data leadership team and work closely with analytics, data science and governance teams in order to deliver data solutions that generate business value

|  |
| --- |
| **Education Profile** |

* **Ph.D** in Statistics from Chaudhary Charan Singh University
* **M.Sc**. Statistics from Osmania University with distinction (71%)
* **B.Sc.** (Maths, Physics, Chemistry) from Osmania University with distinction (70%)

|  |
| --- |
| **Certifications** |

* SAS Advanced Certified Professional

|  |
| --- |
| **Technical Skills** |

|  |  |
| --- | --- |
| **Tools** | Python, R, SAS, IBM SPSS, Excel |
| **Techniques** | Supervised and Unsupervised Machine Learning Techniques viz. Regression, Classification, NLP, Clustering, Forecasting, Deep Learning |
| **Algorithms** | Logistic , Linear, Decision Trees, Random forest, Gradient Boosting, K-Means, Naïve Bayes, Support Vector Machines, Natural Language Processing, Neural Networks |
| **Libraries** | Pandas, Numpy, Scipy, Scikit-learn, NLTK, TensorFlow, Keras, PyTorch |
| **Visualization tools** | Tableau, Matplotlib, Seaborn |
| **Cloud Platforms** | Microsoft Azure, AWS, GCP |
| **Programming Languages** | Python, Hive, SQL, PL/SQL, R |
| **Application Servers & Databases** | Microsoft SQL Server, Oracle, MongoDB, MySQL, Hadoop |
| **Systems** | Windows, Mainframes, UNIX |

|  |
| --- |
| **Experience Profile** |

* **Assoc Delivery Manager-AI/NLP** with Legato Health Technologies(**Anthem Inc**.) from August 2020
* **Sr. Project Lead/Manager** with **UST Global,** Hyderabad from July 2019 to June 2020
* **Sr. Manager** with **Bank of America,** Hyderabad from November 2007 to April 2019
* **Sr. SAS consultant**  with **eMids Technologies Pvt. Ltd.**, Bangalore from August 2006 to Oct 2007

|  |
| --- |
| **Key AI/ML**  **Projects handled** |

**1. Benefits Search AI Assistant** (**Anthem Inc**, U.S.A.):

The objective is to enable Benefits Search engine for members and agents for getting relevant information about specific benefits (cost share, co-pay, co-insurance, inclusions/exclusions, etc.) on various Health insurance plans for a number of market segments like Govt., Commercial, Medicare, Medicaid etc. using Artificial Intelligence and Natural language processing techniques by extracting benefit level details from State health policies and populating the same in a MongoDB collection for the search APIs to consume.

**Management responsibilities**: Project management/planning, associate engagement, End to end delivery ownership

**Tech stack**: Python, MongoDB, AWS

**2. Document classification using Natural Language Processing techniques** (UST Global, U.S.A.):

The objective is to classify a given Project Contract document as Risky or Non-Risky using NLP techniques

**Tech responsibilities:**

* Convert the pdf/word document to html format
* Read and convert the html text based on targeted headings/content into CSV file using BueatifulSoup library
* Pre-process and Cleanse the text data using Regular Expressions and BueatifulSoup(tokenization, removal of special characters and stop words, lower casing)
* Convert text to numeric format and Feature extraction using Count Vectorizer and Tfidf Transformer
* Split the data into Train and Test sets
* Apply Machine Learning models on Train data and Choose best model
* Test the model accuracy on Test data
* Evaluate the model performance on new data

**Management responsibilities**: Project management/planning, associate engagement, End to end delivery ownership

**Tech stack**: Python, AWS, GCP

**3. Credit Scoring Models Validation & Decision Support** (Experian, U.S.A.):

**Responsible for:**

* Building Machine Learning models
* Validating the models and Verify that credit scorecards are working as intended.
* Model usage is in line with business objectives and expectations.
* Perform exploratory data analysis to confirm data integrity and to derive appropriate analytical attributes.
* Collaborate with internal and external clients to determine the appropriate analysis parameters and performance measures to be applied, as well as requirements for decision tool and strategy implementation and monitoring.
* Support field sales force and marketing organization by providing analytical expertise.

**Management responsibilities**: Project management/planning, associate engagement, End to end delivery ownership

**Tech stack**: HiveQL, Pyspark, SAS, Python, Excel, R

**4. Foreclosure Risk Scoring Model** (Bank of America, U.S.A.):

This Risk Scoring model is developed using Logistic Regression on the workout inventory data in order to predict the probabilities (scores) for customers who are currently in Workout Modification Plan and may go to Foreclosure. Higher the probability, higher the risk of being foreclosed.

A number of candidate models are developed and tested before coming to the final model. The models are also tested for their accuracy. The Performance of this model is evaluated on monthly basis with actual data.

**Tech responsibilities:**

* Extracting relevant data from various sources in structured and unstructured format
* Cleaning, Manipulation of the data
* Conducting Exploratory data analysis
* Testing the Correlation and Multi-collinearity among the variables and selecting the appropriate variables for Model
* Building of LOGISTIC Regression Models
* Creating the ROC curves & Model Lift charts to assess model performance, Validation and interpretation of model results
* Scoring the new data using the model and evaluating the model performance

**Management responsibilities**: Project management/planning, associate engagement, End to end delivery ownership

**Tech stack**: SQL, SAS, Python, Excel, R

**5. Sentiment Analysis and Text Mining** (Bank of America, U.S.A.):

Performed Sentiment analysis and Text analysis using NLP techniques and Machine Learning Classification algorithms on Customer reviews and Feedback based on Chat logs and text data.

The objective of this project is to analyse and classify the customer sentiment on various services that Bank provide under Mortgage and Home loans division and hence suggest the management to take appropriate actions in improving the service in order to retain the customers.

**Tech responsibilities:**

* Pre-process and Cleanse the text data using Regular Expressions and BueatifulSoup(tokenization, removal of special characters and stop words, lower casing)
* Convert text to numeric format and Feature extraction using Count Vectorizer and Tfidf Transformer
* Split the data into Train and Test sets
* Apply Machine Learning models on Train data and Choose best model
* Test the model accuracy on Test data
* Evaluate the model performance on new data

**Management responsibilities**: Project management/planning, associate engagement, End to end delivery ownership

**Tech stack**: Python, SQL, R

**6. HELOC Risk Scoring Model** (Countrywide Financial, U.S.A.):

The main objective of this model is to develop a credit risk scoring rule that can be used to determine the likelihood that a customer who is active in current month and may go to delinquency bucket in the next month. This in turn is useful for the Call Centre Strategy.

**Tech stack**: SQL, SAS, Excel, R

**7. Health Insurance Premium Prediction** (AIM Healthcare Services Inc., U.S.A.):

Used ML/DL algorithms to predict the likelihood cost of the premium for a health insurance policy for an individual. The cost depends from person to person, as many factors (age, health risk etc.) affect the amount of the premium for a health insurance policy.

**Tech stack**: Python, AWS

**7. AIM’s Targeted Outlier Model (ATOM)** (AIM Healthcare Services Inc., U.S.A.):

The main objective of this project is to identify the overpayments that are made to Healthcare providers from various Insurance Providers for reimbursement.

**Tech stack**: SQL, SAS, Excel, SPSS