

## CAREER OBJECTIVE

*Microsoft Certified Data Scientist with 13+ years of experience working on various machine learning models. Passion for delivering valuable data through analytical functions and data retrieval methods. Looking to use my certifications in Azure Machine Learning to manage statistical machine learning and data related solutions at your organization*

## SKILLS

- Machine Learning
- Text Analytics/Natural Language Processing
- Deep Learning
  - Convolutional Neural Networks
  - Recurrent Neural Networks
    - LSTM
  - Sequential Neural Networks
- Keras
- Statistics & Probability
- Azure Machine Learning
- Data Visualization
- SQL, Ansible, Splunk
- Optical Character Recognition
- API creation with Flask

## ALGORITHMS & CONCEPTS

- Decision Tree
  - Gini
  - Entropy
  - Bagging, Boosting, Stacking
- Linear Regression
  - Coefficient of Determination
  - MSE
  - Adjusted R-squared
- Ridge & Lasso Regression
- Logistic Regression
  - Cross Entropy
- Confusion Matrix
- ROC and AUC
- Precision, Recall
- Support Vector Machine
- Naive Bays Classification
- Principle Component Analysis
  - Eigen vector Decomposition
- Neural Networks
  - Activation functions – Tanh, ReLu, Sigmoid

## CERTIFICATIONS

- Microsoft Azure Machine Learning Feb-2019
- Dev-Ops Masters Apr-2018
- Splunk Certified Power User

## PROFESSIONAL EXPERIENCE

### Tata Consultancy Services

from Feb 2013

Project-V Intelligent document identification-BFSI

from Jun- 2019

### Phase-1: Image Pre-processing

- Created function for Image separation and extraction from PDF with help of opencv
- Image cleansing with various denoising filters provided in the standard python packages

- Watermark removal from the background of image
- Image correction in terms of orientation, tilt and rotation

## Phase-2: Image Classification

- Created model for document classification
- Implemented Convolutional Neural Network in Keras for document classification
- Created Dataset with image generator to train model
- Achieved accuracy up to 81%

## Phase-3: Object Detection

- Created model for object detection which can extract relevant information from the images separated from the PDF
- Image labelling done with help of LabelImg to create bounding boxes around the objects and extracting coordinates of those in xml or csv files for feeding them to model
- Created Faster RCNN compatible Dataset by creating function for the same
- Implemented Faster RCNN in Keras for object detection

## Image Denoising:

### Project-IV Fraud detection with help of NLP-UBS (EIA & AI) from Jan- 2019

- Model creation for business use which will identify fraud or criminal background of customer and enable team to discard it from on boarding
- Texts from various sources are gathered in central location from where they imported in python for initial text pre-processing such as space and single character removal, stemming, lemmatization and tokenization using python nltk.
- Feature Hashing technique used for sparse vector creation and these vectorised data is fed to RNN- LSTM model for training and prediction purpose

### Project-III Data Science practitioner (EIA & AI) from Jun- 2016- Jan-2019

- Analysed and processed sophisticated datasets using Splunk®, Azure® and ML to help companies make decision in the area of finance, budgeting and ticket management.
- Expertise in Supervised Learning using Python's sklearn, pandas, numpy, matplotlib and seaborn by building models on Classification Algorithm (i.e. Digit Recognition using K-Nearest Neighbour, Fraud Detection using Logistic Regression, evaluating model using ROC curve and Confusion Matrix) and Regression Algorithm (Linear Regression with Ridge/Lasso regularization).
- Expertise in Feature Engineering using PCA & Lasso and Optimizing Model using hyper-parameter tuning (i.e. Grid Search & Randomized Grid Search) with cross-validation using Python's sklearn, pandas, numpy, scipy, matplotlib and seaborn.
- Achieved document classification with python nltk using stop words removal, stemming, lemmatization, lower case conversion, tokenization, vectorization using nltk TF IDF and sklearn text. CountVectorizer
- Analysing Social Media Data (i.e. Twitter®) using Twitter API (i.e. tweepy - streaming API).

- Text Analytics using nltk functions such as stop words removal, Stemming, Lemmatization, conversion to lower case, tokenizer, CountVectorizer and tfidfvectorizer achieving clustering of text documents into groups.
- Created Deep Learning Models for Image recognition, with pre-processing of images using python OpenCV
- Created model for Optical Character Detection where text Extraction done from images using PIL pytesseract and pyocr
- Creation and deployment of Machine Learning model web API using Python Flask for different users or applications to consume the same for prediction purpose

## Project-II Automation (EIA & AI)

Mar-2016 to Jun-2016

- Data gathering done from various Data-centre devices
- Data gathering and data preparation done on the ITSM tool data
- Achievements include creating multi-class classification model (using logistic regression) to predict Assignment Group with 98% accuracy
- Analysed and processed sophisticated data sets using Splunk, Azure ML to help companies make decision in the area of finance, budgeting and ticket management.
- Created business insight dashboards to improve efficiency of the projects
- Installation and configuration of distributed Splunk -7.x echo system as a data analytics platform
- Creating various data models for general and business users to work upon on Pivot
- Trend analysis for Proactive issue detection.
- Triggering Automation Engine (Ansible) on alerts from various data analytic inferences
- Installation and configuration of Ansible Server in environment to trigger various daily schedule tasks

## Project-I Integrated Command Centre

Feb-2013 to March-2016

As SME for Azure cloud infrastructure primary responsibilities were

- AZURE INFRASTRUCTURE DEPLOYMENT
- Azure AD creation
- Creation of AD Connect server for on-prem AD user sync with Azure AD
- Creation of ADFS proxy and ADFS servers
- Z-scaler integration with ADFS
- Migration of on-premises environment to cloud with help of Ansible

### **SERCO**

#### **SME Technology**

May-2012 – Feb 2013

Primary responsibilities

- Managing server infrastructure
- Managing Email solutions
- Managing Storage infrastructure
- Managing Backup solutions

### **ATOS**

#### **Senior System Engineer**

May-2011 – May-2012

Primary responsibilities were

- Technical support & troubleshooting of Windows Server Environment
- Responsible for the E-genera blades
- Monitoring & trouble shooting of the VERITAS Clusters
- Backup and Restoration of the VERITAS backup

## **NSEiT**

### **Executive Engineer**

Sep-2008 – May-2011

Responsible for all types of technical support & troubleshooting of

- Exchange Server Database related issues
- Exchange Cluster related issues
- Outlook web access related issues

## **WIPRO**

### **Microsoft Exchange Engineer**

Apr-2008 – Sep-2008

Responsible for all types of technical support & troubleshooting of

- Exchange Server Database related issues
- Exchange Cluster related issues
- Outlook web access related issues

## **T N M**

### **Support Engineer**

Apr-2006 – Dec-2007

Primary responsibilities were

- Monitoring and Maintaining Windows servers in Data-Center.
- Installing patches on servers using Windows Services Update Server (WSUS)
- Daily backup of production servers using NetBackup tool
- Creation & Maintenance of users in Active directory

## **EDUCATION**

BE in Electronics and Telecommunication (Mumbai University - Jun-2004)

MBA in Information Technology (SMU - Aug-2011)

## **ADDITIONAL ACTIVITIES**

- Reading about Quantum physics
- Learning and playing Guitar
- Playing Cricket and football

## **PERSONAL DETAILS**

- Date of Birth – 14 June, 1982
- Address – 801, C-2, Ashar Estate, Shree Nagar, Wagale Estate, Thane(W)-400604
- Email – satish\_narale@yahoo.co.in
- Contact Number -9619308530
- Marital Status - Married
- Languages known - English, Hindi and Marathi