# Sandeep Kumar Are

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## **CAREER OBJECTIVE**

A proactive and fast learning individual seeking an opportunity to work as a dynamic data analyst utilizing analytical & methodical skills and relevant expertise to help the company achieve business goals while sticking to vision, mission and values.

## PROFESSIONAL SUMMARY

- Total 5.5 years' experience in IT software Development field and in that 2.5 + years in Python, Machine Learning with large data sets of structured data, data validation, predictive modeling and data visualization.
- Experience on **NLP** with **Deep Learning** Models.
- Experience on Tensor Flow 2.0 and Kera's
- Good Experience with Machine Learning Supervised / Unsupervised Learning algorithms.
- Good knowledge with Probability and Statistics.
- Adept in statistical programming language **Python**.
- Good Experience with NLP NLTK/Spacy Libraries.
- Proficient in managing entire data science project life cycle and actively involved in all the phases including data acquisition, data cleaning, features scaling, statistical modeling.
- Expertise in transforming business requirements into analytical models, designing algorithms, building models, **developing data mining** and reporting solutions that scales across massive volume of structured and unstructured data.
- I have experience on Web scraping data with Python-Selenium.
- I have Experience in **Python MongoDB**.
- Extensive experience in **Text Analytics**, generating **data visualizations** using statistical programming (**Python**).
- Good Experience on Text Pre-Processing with Bag of Words (BoW), TF-IDF, Word2Vec, and Avg word2vec.
- Good Experience on Topic Modeling LDA and NMF Techniques.
- Good Experience with SQL Server 2008/2012/2014/2017.
- Good industry knowledge, analytical &problem-solving skills and ability to work well with in a team as well as an individual.
- Highly creative, committed, intellectually curious, business savvy with good communication and interpersonal skills.

#### **Deep Learning Concepts:**

- Neural Networks: ANN, CNN and RNN
- Tensor Flow 2.0

# **Machine Learning concepts:**

- **Dimensionality Reduction:** Principal Component Analysis, TSNE.
- Prediction Analytics. Simple Linear Regression.
- Classification techniques: Logistic Regression, K-Nearest-Neighbor Methods.
- Tree-based Methods: Regression Trees, Classification Trees.

- Ensemble Methods: Bagging, Random Forests, Boosting.
- Support Vector Machine: Maximum Marginal Classifier, Support Vector Classifier.

Natural Language Processing with Deep Learning.

# **EDUCATIONAL QUALIFICATION**

• B.E Electronics & Communications engineering JNTU University, India. 2012

#### **ROLES & RESPONSIBILITIES**

- Review the dataset and keen understanding of target output to be solved.
- Taking care of dataset with all necessary steps like missing values, checking correlation.
- Performed Data Cleaning, features scaling, features engineering, feature standardization with Count vectorization /TF-IDF vectorization NLP techniques.
- Worked with different techniques from NLTK / SPACY.
- Involved in data visualization with Matplotlib, seaborn techniques.
- Evaluated models using Cross Validation.
- Addressed over fitting by implementing of the algorithm regularization methods.
- Used Principal Component Analysis and t-SNE in feature engineering to analyze high dimensional data.
- After Exploratory data analysis, analyze which model is fit for the data.
- Analyze the results with difference measurement techniques Confusion matrix, Classification reports, Accuracy, Precision, Recall etc.

# **WORK EXPERIENCE**

# **Projects:**

Working as a Software Engineer(AI,ML, NLP and Python) in Svobodha Infinity Private Limited (SAVART) from February 2020 to Till Date.

#### **Project Name: Question and Answer Model.**

Built QA model where it fetches the relevant data from the closed domain data. This is achieved by just placing the search bar in a UI portal and backend operations is done by running **BERT** Model based on the keywords which are placed in search box.

#### Roles and responsibilities:

- I have involved scrap the data scrap the data from various sites, API's and some more resources using Python Selenium.
- Involved in working with Python-MongoDB various tasks.
- Involved in Topic Modeling with NLP.
- Worked with team on BERT Model.
- I have experience in working with Flask-Python for creation of UI.

# Worked as a Software Engineer in Netpeach Technologies Pvt Ltd from February 2015 to January 31<sup>st</sup>2020.

#### **Project Name: Uncover Autism**

#### **Project Description:**

The goal of the project is to help society mitigate the risk of autism in new born babies by identifying more reliable causes of autism. The project will be exploring existing research, and available information with feedback(surveys) from the patient population to define more reliable causes. The

purpose of this study is to provide the healthcare industry with any findings discovered during analysis.

# **Tools and Technologies:**

- Environments Anaconda Jupyter Notebook, NLTK tools.
- Numerical and Visualization libraries NumPy, Pandas, Matplotlib, Seaborn.
- Machine Learning libraries Scikit-learn.

# **Projects:**

#### **Loan Predictions:**

Given historical data on loans given out with information on whether or not the borrower defaulted (charge-off), can we build a model that can predict whether or nor a borrower will pay back their loan? This way in the future when we get a new potential customer, we can assess whether they are likely to pay back the loan. \*This is which I have completed while doing TensorFlow 2.0 exercise from UDEMY Certifications. Worked with: Tensor Flow 2.0, Feed Forward Neural Network(ANN), Kera's with TF.

https://colab.research.google.com/drive/1HbwYVE5erBLsqdwO1xqqYYRX1GqB5IFL?usp=sharing

#### **Predict the Image on CIFAR-10 Dataset:**

From CIFAR-10 Data set we have 10 different kind of Images. So through TF2.0-CNN how can we predict that what evaluating the Image is predicted right or wrong.

https://colab.research.google.com/drive/1a8jEazm8GL05A-DDvAh5NaOO\_ND6epQs#scrollTo=XwWqSFfkPULp

## Predictive Analysis on Advertising data.

https://www.kaggle.com/shivasandeep/advertising-data

# Time Series Analysis: On Stock Market data.

We will use the historical stock price of the New Germany Fund (GF) to try to predict the closing price in the next five trading days.

https://www.kaggle.com/shivasandeep/time-series-analysis/

## **Sentiment analysis on Amazon review with Vader:**

I have taken a amazon reviews data set from Kaggle and worked on Sentiment analysis on the text data with VADER algorithm.

https://www.kaggle.com/shivasandeep/sentimentanalysis-on-amazon-review

# **Topic Modeling:**

I have implemented Topic modeling on NPR data set with LDA and NMF techniques. https://github.com/SandeepKumarAre/Datascience/tree/master/Topicmodeling

## **Certifications:**

NLP with Python for Machine Learning Essential Training Statistics Foundation1