PRASANTH TIRUMALASETTY

contacttirumalasetty@gmail.com Phone: +1 313-727-5017

EDUCATION

University of Michigan **Expected Graduation: APR 2023**

Master of Science in Data Science (GPA**:** 3.5/4.0)

Relevant Coursework: Data Mining, Data BaseManagement Systems, Data Security and Privacy, Big Data Analytics and visualization, Enterprise Information Systems, Deep Learning, Models of Operational Research

GITAM UNIVERSITY INDIA **July 2015 - May 2019**

Bachelor of Engineering in Computer Science (CGPA**:** 7/10)

SKILLS

- **Programming Languages: Python** (NumPy, pandas, scikit-learn, matplotlib, seaborn**,** plotly), MySQL, C, HTML, CSS, PHP, JS, jQuery
- **Data Science & Machine Learning:** Data Cleaning, Data Visualization, Supervised Learning (Decision Tree, Naive Bayes, SVM, KNN, Ensemble methods), Unsupervised Learning (Clustering), Regression.
- **Software Tools:** Tableau, Jupyter, Arduino, MSOffice, Git.
- **Operating Systems:** Windows and Linux.

PROFESSIONAL EXPERIENCE

Carzydeal Pvt Ltd India **May 2016 – July 2016**

BI Developer

- Engaged with business users, gathered business requirements, and prepared the documentation for requirement analysis.
- Extracted data from SQL server by extensively using Joins and Sub queries in SQL according to the requirements of purchasing, Production and Marketing department.
- Created centralized data warehouse **(ODS)** and developed de-normalized structures based on the requirements and to improve the query performance for end users.
- Created **ETL design** specifications, performed unit testing, data validations, integration testing and UAT and deployed **SSIS packages** to development and test environments.
- Analyzed finance and Marketing databases to understand business trend and predicted multiple case scenarios for the decision making of further production and marketing decisions.
- Evaluated customer credit rating and sales targets and achievements for different channel partners in different locations.
- Implemented Tableau to develop dashboards to visualize specific department KPIs for further reporting.
- Presented insights to business team generated in Tableau to executive management.
- Implemented predictive forecasting for budging production strategy with sales and marketing strategies with a budget plan
- Provided training to the business users on how to use new data warehouse, browsing cubes from Excel and assisted them in rewriting their existing queries to point to the new warehouse.

Machine Learning Intern, MSR Techlabz, India. **May 2017 – July 2017**

- Developed a model for network intrusion detection using machine learning algorithms to solve Network Intrusions.
- Naive Bayes, Decision Tree, K-means clustering gave good True Positive rate, but equally false positive rate was also high. To avoid high false positive rate, we used Random Forest, Decision Tree with Gaussian Mixture model.

Accenture **June 2019 – Sept 2021**

Data Analyst

- Implemented PowerBI platform as a reporting solution in the organization. Developed web applications using PowerApps and implementation of other tools in Microsoft dynamics 365.
- Developed Data Warehouse schemas for analytics team and finance team to deploy fact and dimension table and defined referenced relationships with the measure groups and fact tables to improve efficiency of existing process.
- Involved in implementing “Monday.com” as a Resource planning tool and Production Planning tool in the organization.
- Presented insights to business team generated in PowerBI to executive management.
- Involved in Technical discussions and decisions for Business requirements, Interaction with Business Analysts, Client team and Development team.
- Participated in requirement gathering, cube design, application design and development.
- Analyze finance and Marketing data to understand business trend and predicted multiple case scenarios for the decision making of further production and marketing decisions.
- Extract data from different SQL databases and performed various analysis to understand the insights of the data.
- Developed ETL’s to automate several current manual processes involved intense resource draining

- Interact with clients on requirement gathering to build relations in PowerBI for resource database to improve data integrity. Construct custom dashboards in power BI for business leaders to draw valuable business insights.
- Developed custom reports and deployed them on server using Power Bl.
- Transferred data from various OLTP data sources, such as Oracle, MS Access, MS Excel, Flat Files, CSV files into SQL Server 2012.
- Created new database objects like stored procedures, Functions, Triggers, Indexes and Views using T-SQL in Development and Production environment for **SQL Server.**
- Developed dashboards to visualize specific department KPIs for further reporting.
- Created and Designed a Multi-Dimensional Analysis (Configured OLAP Cubes, Dimensions, Measures, **MDX Queries**, Data mining, Data Source and Data Source Views and Star schema) using **SQL Server** Analysis Services (**SSAS**).
- Utilized Power Query in PowerBI to Pivot and Un-pivot the data model for data cleansing and data massaging.
- Supported in deployment of visualization to SharePoint such that different level of management can utilized by interaction.
- Created various reports for analysis of revenue, claims, customer interactions and shipping data using **PowerBI**
- Worked closely with **QA** team and helped them come up with test scenarios.

PROJECTS

ECG Heartbeat classification using CNN: (in progress)

- Analyzing time series data of ECG signals for humans to make prediction of Myocardial Infraction (MI) using CNN, LSTM.

Analyzing Trends in H1B Visa and factors relating to it:

- Processed employment-based immigration data provided by the Office of Foreign Labor Certification using NLTK**,** ADASYN, Gensim to predict whether the H1B visa will be accepted or rejected. The model was 97.3% accurate.

Classification of Tweets:

- Developed a model to predict the political inclination (Republic/Democratic) of the Twitter user from one of his/her tweets.
- Processed raw tweet text using the various functions offered by the NLTK package and the feature vectors are constructed using tf-idf vectorizer.
- The SVM classifier provides four kernels, by comparing the results provided by the kernels, poly provides the better accuracy. The model was 95.2% accurate.

HR Analytics Dashboard:

- Created a dashboard using Tableau to analyze the attrition rate among the job roles, attrition with respect to years since last promotion and number of years in current role, attrition rate with respect to current manager.

Human Detection Using Tensor Flow:

- Using real time video stream developed a model to send indication or alarm if it identifies human beings. It has been interfaced with Arduino microcontroller to generate the physical output by using Python module named Pyserial**.**

Digits Classification:

- Implemented Multiclass classification of artificial neural network **(**ANN**)** without using libraries.
- If the dataset is huge, the algorithm may not converge, and we can assume some threshold value. The model was approximately 86% accurate.

Mining Frequent Itemsets with Multiple Support Thresholds:

- Generated frequent itemsets for a transaction database file using MS Apriori algorithm to find how items purchased by a customer are related.

ACTIVITIES

- Received certificate of Excellence in Robotics Championship in UTKRANTI-16 organized by Wingfotech Excellence at IIT MADRAS during CHEMCLAVE ’16.