SHANMUKHA SARAT PONUGUPATI

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EDUCATION

Northeastern University, Boston, MA **Sept 2021-May 2023**

Master of Science in Data Analytics Engineering ***GPA – 3.68***

Relevant Courses: Algorithms, Machine Learning, Machine Learning In Finance, Database architecture and Design, Computation &Visualization, Data Mining in Engineering, Operations Research, Financial management

GVP College of Engineering, Visakhapatnam, India **Aug 2015 -Aug 2019**

Bachelor of Technology in Computer Science Engineering

Relevant Courses: Machine Learning, Operating Systems, Probability and Statistics, Design and Analysis of Algorithms, Object Oriented Programming

TECHNICAL SKILLS

Programming Skills: Python, SQL programming, R, Java, JavaScript, C/C++, SAS, H2O, Linux, Perl, Software Programming

Big Data: ETL, MATLAB, Hadoop, Spark, Hive

Libraries: NumPy, Seaborn, Pandas, Matplotlib, ggplot2, tidy verse, scikit-learn, TensorFlow, pytorch

Tools: Tableau, Power Bi, Spacy, AWS, Git, NLT Toolkit, GCP, Microsoft azure, Microsoft excel, SPSS

Database: MYSQL, MongoDB, NoSQL,

Machine Learning: Data Preprocessing, Data Visualization, Data gathering, Supervised Learning, Unsupervised Learning, Deep Learning, NLP, Data Science, Statistical methods, Algorithms, data Analytics, Business Intelligence, interactive Dashboards, MLOPS, Predictive analytics.

Professional Certifications: TensorFlow developer by Google, Deep Learning specialization (Coursera)

Soft Skills: Sourcing, cataloging, collaborative, attention to detail, excellent verbal and written communication skills, team oriented, issue management

PROFESSIONAL EXPERIENCE

Data Science Intern, Alma better **Dec 2020-Apr 2021**

- Carried out performance evaluation employing Accuracy, RMSE, MAE and ROC to measure accuracy of models. And an accuracy of 85% is achieved on the validation.
- Created various ML models capable of detecting emotion through speech validated them, and back tested them.
- Implemented end to end using Flask API and deployed on AWS.
- Trained Deep Learning Models using Transfer learning in Python with help of TensorFlow.
- Performed analysis on audio clips using Mel Spectrogram, MFCC and Image analysis on the spectrogram of the audio clips using image processing techniques to make data- driven decisions.
- Remodeled using Data Augmentation methods and over sampling to create a robust model.
- Reduced hate-speech in virtual meetings by 87%.

PROJECTS

Customer Revenue Prediction, Northeastern University **Feb 2022**

- Performed a Time Series and Geographic analysis on the data to gain insights and find patterns in the data.
- Used libraries like sklearn, seaborn in Python to Analyze a Google Merchandise Store (G Store) customer dataset as a part of Kaggle competition to predict revenue per customer.
- Trained models like Random Forest, XGBoost, KNN, Light GBM. After fine tuning of hyperparameters, a consistent RMSE score of 1.71 has been achieved.
- Strengthened marketing ROI significantly by targeting audience using 80-20 rule and offered other financial services.

Sales Insight Dashboard, Tableau **Jan 2022**

- Created an interactive Tableau Dashboard to get insights into the revenue and Sales.
- Implemented a live connection to MySQL database.
- Generated charts like top n products, top n consumers filtered by year, Region.
- Discovered various patterns using data driven approaches in the shopping style of the customers that initiated a profitable target marketing.

Database Design for Credit Card Application, Northeastern University **Dec 2021**

- Created a Credit card Application management database by formulating business rules and designing ERD
- Constructed relation databases consisting of 80 entities deploying DDL statements in SQL.
- Implemented concepts of triggers, table level constraints and stored procedures to enhance efficiency of the database.
- Delivered a top-quality Database system with minimal response time and a consistent cache-hit ratio of 99.54%.