ISHAL ABHISHEK MUMMIDIVARAPU

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Available: May 2022– Jan 2023

EDUCATION

Northeastern University — **Boston, MA**
Khoury College of Computer Sciences — **Sep 2021 - PRESENT**
Master of Science in Data Science — **CGPA : 3.83**

Vellore Institute of Technology — **Vellore, India**
Bachelor of Technology in Electronics and communication with specialization in Internet of Things and sensors. — **June 2021**
CGPA : 8.61

SKILLS

Programming Languages: Python, SQL, R
Machine Learning: Classification Analysis, Predictive Analysis, Natural Language Processing, Random Forests, Boosting, Bagging, Evaluation metrics
Python Libraries: Pandas, NumPy, SciPy, Scikit-learn, Datetime, Matplotlib
Software and Tools: RStudio, PyCharm, Jupyter Notebook, Tableau
Databases: MySQL
Other: Data Modeling, Data warehousing, Data Integrity, Data Ingestion, Data manipulation, Data Architecture.

PROFESSIONAL EXPERIENCE

Northeastern University — **Boston, MA**
Data Analytics Project Assistant — **Sep 2021 - Present**

- Partnered with Sense, a company based in Cambridge, this project aims to give engaging real-time analytics on energy consumption in consumer homes. Applied data visualization tools like Tableau, Power BI to analyze massive amounts of information and make data driven decisions.

Smart Bridge — **Hyderabad, India**
Machine Learning Intern — **Aug 2020 - Sep 2020**

- Built an Web Application, where the patient's health features(Glucose ,Blood pressure etc) are entered and depending on the entered parameters, the machine learning model integrated to the Web Application will predict the type of diabetes and according to the type of diabetes diet plan for the person will be displayed on the UI.

PROJECTS

Subscription Prediction Analysis

- Predicted the term deposit subscription odds of a customer, based on call duration, education, job, etc. utilizing a Portuguese Bank's marketing campaign's phone call data, it consists 45211 instances.
- Performed EDA, Data pre-processing, Data sampling, Feature Selection; and implemented Adaboost, XGBoost, Logistic Regression, Naive Bayes, Random Forest.
- Compared the performance of models using ROC curves, precision-recall scores as evaluation metrics.Achieved precision-recall score of 95% using XGboost on undersampled data and 98% using XGboost on oversampled data.

Periocular region based person recognition using deep learning

- Pre-processed 10,562 images and their corresponding text files using GLOB in python, all images are grouped into their respective class and resized, ready to be trained. And the meta data of each image is stored in a csv file, which was later used in training.
- Built the model based on Feature Fusion approach which takes features from both from handcrafted and non-handcrafted features techniques and combines them. When we obtained the feature descriptors from the handcrafted technique Histogram of Gradients and combined that with VGG19 CNN model produced the best accuracy of 96.5%. The model is trained such that it is robust against mirror images and tilted images.

Chronic Kidney Disease (CKD) Analysis

- Compared different Machine Learning Algorithms In Python for the CKD Dataset and Choosing the best features from them. Front end was created using HTML, CSS . Integration of the Machine Learning model and Front End was done using Flask Module. The project predicts whether the patient is affected with CKD or not, depending on the attributes entered in the ML model through the front end.

CERTIFCATIONS

NPTEL Deep Learning — **Issued : August 2021**

- Certified by National Programme on Technology Enhanced Learning (NPTEL), IIT Kharagpur with ELITE Grade