T Sai Narendra

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Education

GITAM DEEMED UNIVERSITY   **Vishakapatnam, A.P**
Master of Science, Data Science. CGPA (8.41/10.0)   June-2021.

OSMANIA UNIVERSITY   **Hyderabad**, **Telangana**
Bachelor of Science, Physics. CGPA (8.66/10.0)   June-2019.

Projects

DRUG DISCOVERY-AChE
- Acetylcholinesterase (AChE) in inhibitor used for the treatment of Alzheimer, Using the dataset collected from ChEMBL Database, ML Models are used for classifying the AChE molecules.
- Computed PubChem Finger prints From SMILE's using python module PADEL Descriptor.
- Developed Various Models and Observed Random Forest Classifier as best Performing Machine Learning Model with 83% of Recall and ~80% of F1-Score.

SOLUBILITY PREDICTION
- Solubility provides homogenous system of dissolution for solvent to achieve an anticipated Concentration of Drug
- Computed various 1D-descriptors from SMILE notations like Mol. Weight, Number of Rotatable Bonds etc. by using a chemical python module rdkit.
- Identified XGBoost Regressor as best performing Machine Learning Model among various models suited for the Regression problem with Coeff. of Determination of 88.0 and Mean Squared Error of 0.51.

DISEASE PREDICTION
- Predicting 42 different classes of diseases using Machine Learning with 133 common symptoms of predictors.
- Developing of various models on these 133 binary categorical predictors (nausea, chills, etc.).
- Concluding RandomForest Classifier as the best suited Machine Learning Model to classify the 42 different diseases classes.
- Finalized Model tested with an accuracy of 92% classifying different disease classes.

SKILLS & TOOLS

Machine Learning, Deep Learning, Natural Language Processing.
Data Collection: API's, Web scraping.
EDA & Visualization: SweetViz, Tableau.
Pre-processing: NumPy, Pandas.
ML\DL Frameworks: Sklearn**,** TensorFlow, Keras.
NLP Frameworks: NLTK, SpaCy.
Tuning: HyperOpt, Optuna.
Deployment: Flask, Streamlit.
Programming: Python, MsSQL, C, C++.
IDE: PyCharm, Jupyter Notebook, Google Colab.