MURALI TANNERU

Chicago, IL | (312) 871-7097 | thannerumurali5l1@gmail.com | https://www.linkedin.com/in/murali-tanneru-5b65b3168/

EDUCATION

Illinois Institute of Technology, Chicago, IL, USA ***01/2023-05/2024***
Master of Applied Science (M.A.S.), Computer Science Master's, GPA-3.66

Vasireddy Venkatadri Institute of Technology, Andhra Pradesh, India ***07/2016-09/2020***
Bachelor of Technology, Computer Science,GPA-3.5

TECHNICAL SKILLS

Programming: Python, Core & Advanced Java

Machine Learning: Regression (Linear, Lasso, Ridge, Elastic Net), Decision Trees, Random Forest, SVM, Logistic Regression, k-NN, Naive Bayes, PCA, K-Means, Cross-Validation, Bagging, Boosting etc.

Natural Language processing: Tokenization, Stemming, Lemmatization, NER, POS Tagging, Dependency Parsing, CFG, CKY, Sentiment Analysis, Text Classification, Word Embedding etc.

Deep Learning: ANN, CNN, RNN, LSTM, Self-Attention, Transformers.

***Data Analysis & Visualization*:** Python (pandas, numpy, scipy, scikit-learn, matplotlib, tensorflow, spacy, nltk, pytorch, keras, seaborn), Tableau, Excel, Data Studio, Visual Studio.

Big Data: Hadoop, Map Reduce, Hive, Spark, Spark Streaming, Kafka.

***Data Structures & Algorithms*:** Graphs, Trees, DP, Greedy, Arrays, Strings, Stack, Queue, Linked Lists.

Web Technologies: HTML, CSS and Javascript Basics.

***Database*:** SQL

Other: Unix Commands

PROFESSIONAL EXPERIENCE

System Engineer, *TATA CONSULTANCY SERVICES, Hyderabad, India* ***01/2021 - 12/2022***

- Contributed to the establishment of a unified integration testing platform for multiple development teams at TCS, managing code deployments to ensure the stability of the testing environment.
- Took ownership of identifying and investigating errors during testing, with effective communication with relevant teams.
- Implemented code changes for web pages using Java to introduce new features and modifications.
- Participated in daily sprint planning meetings and provided daily work updates during regular conference calls.
- Used tools IntelliJ, Eclipse, SoapUI, postman, Jira etc.

PROJECTS : https://github.com/muralitanneru

Chest X-ray Image Classification

- Initiated an automated pneumonia diagnosis system through chest X-ray image classification. Assembled a dataset of 5866 images and employed Convolutional Neural Networks (CNNs) and Support Vector Machines (SVMs) for analysis.
- Preprocessing involved refining chest X-ray images with grayscale conversion, resizing to 224x224 pixels, and augmentation techniques, enhancing model generalization for accurate pneumonia diagnosis.
- The Support Vector Machine (SVM) outperformed the Convolutional Neural Network (CNN) in test accuracy, making it the preferred model for pneumonia identification.

Sentiment Analysis and Bias Evaluation

- Implemented Bi-Directional RNN, Bidirectional LSTM, RoBERTa, logistic regression, and SVM models on Twitter dataset, identifying biases in sentiment analysis, and enhancing overall accuracy.
- Utilized tokenization, stemming, stop-word removal and applied TF-IDF vectorizer for sentiment classification as preprocessing steps for SVM and logistic regression models on Twitter data, ensuring effective analysis
- Identified bias in each model, emphasizing the need for further research and mitigation strategies to enhance fairness in sentiment analysis.

Heart Attack Analysis and Feature Prediction

Spam and Ham Detection using Machine Learning Models

Hand-Written Digit Recognition & Image Classification using CNN