Tasnim Tabassum

Personal Info

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Skills

○ Microsoft Excel

○ Python

○ C++

○ Problem-solving

○ SQL

○ MATLAB

Languages

○ English

○ German

Enthusiastic Data Scientist with a genuine passion for making a difference. I'm a young, energetic individual who's always eager to learn and dive into new challenges. With a natural curiosity and a love for all things data, I'm excited to bring my skills and drive to a team that's committed to making a positive impact.

Work Experience

Werkstudent Research for AI in Business Transformation, E.ON Deutchland, Essen
March 2024 - Present

-Collaborating on AI projects to develop, test, and improve AI tools.
-Leading research efforts in collaboration with Maastricht University focused on AI tools and integrating the findings to drive business development.
-Pursuing studies while gaining practical experience in AI, research, and digital learning.

Werkstudent Data Management / MLOps, E.ON Deutchland, Essen
April 2023 - October 2023

-Planned and implemented machine learning projects from proof of concept (PoCs) to production.
-Developed end-to-end machine learning solutions in the cloud.
-Supported the creation of tools to facilitate future developments.

Werkstudent Data Science, Ecolab, Monheim Am Rhein
October 2022 - March 2023

-Processed hygiene operations data into valuable insights for internal and external customers.
-Collected, transformed, analyzed, and visualized data; developed and validated models and algorithms for automated sensor data analysis using Python.
-Supported product development, tested concepts with customers, and assisted with RD&E office activities.

Education

Master of Science in Computational Social Systems, RWTH Aachen University
October 2020 - Present

Bachelor of Science in Computer Science & Engineering, Hajee Danesh Science and Technology University
April 2014 - April 2019

Publications

Enhancement of Single-Handed Bengali Sign Language Recognition Based on Different Features
2020

This paper presents a model for recognizing Bengali sign language characters using pre-processing techniques like Histogram Equalization and YCbCr color space for segmentation. Histogram of Oriented Gradients (HOG) features are extracted to train a K-Nearest Neighbors (KNN) classifier. The model achieves a 91.1% accuracy, demonstrating effectiveness for real-life applications.

Link: http://www.jatit.org/volumes/Vol98No5/2Vol98No5.pdf

Efficient Noise Reduction and HOG Feature Extraction for Sign Language Recognition
2018

The paper proposed a pipeline to reduce the noise from the images of the dataset using image processing techniques such as Logarithmic Transformation, Histogram Equalization etc. while detecting sign language. In the first step canny edges are detected from the segmented images of signs. After that, the proposed method identifies the signs based on the features extracted using Histogram of Oriented Gradients (HOG) Feature Extraction strategy. The extracted features of the signs are classified using KNN classifier.

Link: https://ieeexplore.ieee.org/document/8642983

Projects

Sentiment-Analysis
A NLP project that performs sentiment analysis by classifying movie reviews into two classes i.e. positive and negative. Python and Jupyter Notebook was used to develop the system, the libraries used include Keras, Gensim, Numpy, Pandas, Regex(re) and NLTK. It also uses Google News Word2Vec Model.

Link: https://github.com/towmony/Sentiment-Analysis

NLP-based Chatbot using Python
This Python project builds a chatbot using deep learning, specifically an LSTM-based recurrent neural network, to classify user messages and provide responses based on predefined categories (intents). The retrieval-based chatbot is developed with tools like NLTK, Keras, and Numpy.

Link: https://github.com/towmony/Python-Chatbot-using-NLTK-Keras

Detecting fake news using Python
This python project used a model to accurately classify a piece of news as REAL or FAKE. I used a political news dataset, implemented a TfidfVectorizer, initialized a PassiveAggressiveClassifier, and fit the model. In the end, the accuracy score and the confusion matrix tell us how well the model performs. It ended up obtaining an accuracy of 92.82% in magnitude.

Link: https://github.com/towmony/Detecting-fake-news-using-Python