Tasnim Tabassum

towmony@gmail.com Aachen, Germany
https://tasnim-data-scientist.github.io in/towmony

PROFILE

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

03/2024 – Present
Essen

Werkstudent Research for AI in Business Transformation, *E.ON*
- Collaborating on AI projects to develop, test, and improve AI tools.
- Leading research efforts in collaboration with Maastricht University focused on AI tools & Change Management; integrating the findings to drive business development.
- Pursuing studies while gaining practical experience in AI, research, and digital learning.

04/2023 – 10/2023
Essen

Werkstudent Data Management / MLOps, *E.ON*
- 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.

10/2022 – 03/2023
Monheim Am Rhein

Werkstudent Data Science, *Ecolab*
- 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

10/2020 – Present

Master of Science in Computational Social Systems, *RWTH Aachen University*

04/2014 – 04/2019

Bachelor of Science in Computer Science & Engineering,
Hajee Danesh Science and Technology University

LANGUAGES

English ●●●●● German ●○○○○

SKILLS

🐍 Python | 💻 C++ | 🤖 Machine Learning | 🧠 LLMs (Large Language Models)

💬 Prompt Engineering | 🗃️ SQL | 📊 MATLAB | 🧩 Problem-solving

📈 Project Management | 📉 Microsoft Excel

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
Developed a Python chatbot leveraging deep learning with an LSTM-based recurrent neural network for message classification and intent-based responses.

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 PassiveAggressive Classifier, 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

PUBLICATIONS

2020

Enhancement of Single-Handed Bengali Sign Language Recognition Based on Different Features
This paper proposes a model for recognizing Bengali sign language characters using Histogram Equalization and YCbCr color space for segmentation. HOG features and a KNN classifier yield 91.1% accuracy, showing promise for real-world use.

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

2018

Efficient Noise Reduction and HOG Feature Extraction for Sign Language Recognition
The paper proposes a pipeline for sign language detection that reduces image noise using techniques like Logarithmic Transformation and Histogram Equalization. Canny edges are detected from segmented images, followed by HOG feature extraction and classification using a KNN classifier.

Link: https://ieeexplore.ieee.org/document/862983