Siam Arefin

siamarefin2000@gmail.com | 01533377375 | Sylhet, Bangladesh | github | kaggle

PROFILE

I am Siam Arefin, a third-year student studying Software Engineering at Shahjalal University of Science and Technology. I am enthusiastic about learning new things and exploring valuable concepts to collaborate on. I am particularly interested in machine learning and deep learning and I am focusing on learning these topics as well.

EDUCATION

Bsc in Software Engineering 01/2020 – present | Sylhet, Bangladesh
Shahjalal University of Science and Technology

SKILLS

Data Analysis and Visualization
Python, Pandas, Numpy, Matplotlib, Seaborn

Deep Learning
NLP, CNN, RNN, OpenCV, Pytorch

Problem Solving
Solve 800+ problems.
Vjudge: https://vjudge.net/user/siamarefin
Codeforces:
https://codeforces.com/profile/siamarefin2000

Machine Learning
Classification and Regression models such as XGBoost, GradientBoost, Lasso, Ridge, KNN, SVM

Programming Language
C, C++, Java, Python

PROJECTS

Bangla Newspaper Classification
We are working on classifying news articles into three categories: bd_politics, international_politics, and non_politics. We are utilizing the csebuetnlp/banglabert transformer model, GRU, and LSTM models, and have achieved approximately 90% accuracy.
GitHub: https://github.com/siamarefin/Bangla_news_classification

Bangladeshi Autonomous Driving Object Detection Dataset
I took part in the SUST DL Enigma 1.0 event where our team's main focus was on detecting road vehicles. We managed to secure the 4th position in the competition. Our approach involved using the YOLOv8 and RTDETR models along with data augmentation techniques. In addition, we used data analysis, fine-tuning, hyperparameter optimization, and ensemble techniques to enhance our model's performance.
GitHub: https://github.com/siamarefin/SUST_DL_eningma1.0

Bhashamul-Bengali-Regional-IPA-Transcription

This is a NLP competition. In the Bhashamul Bengali Regional IPA Transcription competition, we utilized the BYT5-small model to convert Bengali text to IPA. We achieved a top 15 position by cleaning data, removing HTML and punctuation, removing stop words, and using fine-tuning and hyperparameter techniques.
GitHub: https://github.com/siamarefin/Bhashamul-Bengali-Regional-IPA-Transcription

Python + OpenCV Projects
I have completed my project focusing on OpenCV and Python. The project entails various functionalities, including:
- **Face Detection:** Implementing algorithms to detect faces within images or video streams.
- **Shape Detection**: Utilizing OpenCV to identify and recognize geometric shapes such as circles, rectangles, and triangles.
- **Text Detection:** Implementing techniques to detect and extract text from images or video frames.
- **Color Detection**: Developing algorithms to identify and analyze colors within images.
- **Bird's Eye View**: Implementing perspective transformation techniques to obtain a bird's eye view of a scene or object.
- **Python Chatbot (Alexa)**: Creating a chatbot using Python, providing interactive conversational experiences.
- **Drowsiness Detector**: Creating a Python code with OpenCV which can detect sleeping eyes and set an alarm.

GitHub: https://github.com/siamarefin/openCV