Fahim Muntasir

+880-1701009210 | muntasirfahim.niloy@gmail.com | github.com/fahim-muntasir-niloy | linkedin.com/in/fahim-muntasir-7bb793146

Summary

As an aspiring data scientist, my research interests are centred around the application of machine learning in ways that directly benefit and engage with people. I believe that the true potential of machine learning can be unlocked when we integrate its capabilities into various domains, fostering cross-disciplinary collaboration for innovative solutions. I am focused on developing AI systems that are not only highly functional but also intuitive, interpretable and transparent.

Experience

Data People, *Machine Learning Instructor* | Dhaka *April 2023 - Sep 2023*
- Mentored more than 30 students on Machine Learning.
- Designed the course curriculum for both machine learning, deep learning and also python course.

Omdena Bangladesh Chapter, *Junior ML Engineer* | Remote *Sep 2022 - Dec 2022*
- Worked on the project **GIS based Fertilizer Recommendation System**
- Did documentation of the project.
- Deployed the model using **Streamlit**.

Metrosemi, *Embedded System Intern* | Rajshahi *May 2022 - Aug 2022*
- Was a core member for redesigning the **TC-900** machine.
- Analysed sensor data obtained from the chip foundry at USA.
- Documentation and Presentation to the client overseas.

Publications

[C.6] **Transparency in House Rent of Dhaka: An Explainable AI Based Predictive Framework** , 6th Industrial Engineering and Operations Management Bangladesh Conference, 2023 *Bangladesh*
Taeef Najib, ***Fahim Muntasir***, Wasif al Wazed

[C.5] **A Fast Response Fault Detection Technique for HVAC Transmission Line Using Machine Learning**, 10th International Conference on Power Systems (ICPS), 2023 *Bangladesh*
Fahim Muntasir, Wasif al Wazed, Mahdee Nafis, M. Mofazzal Hossain

[C.4] **N-point Multivariate LSTM for Long-term Electrical Demand Forecasting with SHAP Explainable AI**, 2nd Australian Conference on Industrial Engineering and Operations Management, 2023 *Australia*
Fahim Muntasir, Subrata Talapatra

[C.3] **A Soft Voting Machine Learning Model Using Explainable Ai for Cardiovascular Disease Management**, NCLAVE 2023 *India*
Fahim Muntasir, Subrata Talapatra, H.M. Belal

[C.2] **Majority Voting Ensemble Approach for Predicting Diabetes Mellitus in Female Patients from Unbalanced Dataset**, 3rd International Conference on Electrical, Computer and Communication Engineering (ECCE 2023) *Bangladesh*
Fahim Muntasir, Md. Shamim Anower, Md. Nahiduzzaman

[C.1] **Improving Performance Factors of an Imbalanced Credit Risk Dataset Using SMOTE**, 2022 4th International Conference on Electrical, Computer & Telecommunication Engineering (ICECTE) *Bangladesh*
M. Karim, M. F. Samad, ***Fahim Muntasir***

Education

3.70/4.00 **M.Sc. in Computer Science and Engineering**, *BRAC University* | Dhaka *Sep. 2023 - Persuing*

2^{nd} Div **B.Sc. in Electrical and Electronic Engineering**, *Rajshahi University of Engineering and Technology* | Rajshahi *2017 - 2022*

Research Interest: Interdisciplinary ML Research, Explainable AI, Computer Vision, Neural Networks, Human centred-ML, MLOPS.

Selected Projects

Bangladesh Geo-Json Project *December 2023*

Open Source Project
- Created the updated (2023) geo-json map of Bangladesh
- Plotly visualization of Choropleth map on the geo-json was also given.

Multiclass Disease Classification from Chest X-ray images using CNN and Transfer Learning *Oct 2023*

Research Work
- Implemented CNN and Deep CNN architecture for multiclass classification
- Applied ResNet101V2 in different configurations to understand their impact

CIFAKE: Real and AI-Generated Synthetic Images Classification using CNN *Sep 2023*

Differentiating real images from AI generated images
- CIFAKE is a dataset that contains 60,000 synthetically-generated images and 60,000 real images (collected from CIFAR-10).
- Implemented a CNN algorithm reaching 90% accuracy

Sentiment Analysis Web-app using Flask *June 2023*

Sentiment Analysis

- This web app is built on custom Setfit sentiment analysis model, where the base model is from Hugging Face Transformers library.
- Custom trained on the twitter sentiment dataset for custom class response.
- Implemented the API using Flask in a web app.

Achievements

2nd Position at Project Showcasing: Highway Light Automation and Pedestrian Sensing. *2019*

IEEE-CS RUET Student Branch, RUET

1st Runner Up in Robo-Soccer *2018*

Maccelaration, Islamic University of Technology

Full Merit Scholarships at SSC and HSC Levels *2014, 2016*

Government of Bangladesh

Skills

Programming	Python, Javascript, C, Git
Data Analysis	NumPy, Pandas, Seaborn, Matplotlib, Power BI, Tableau
Machine Learning	Scikit Learn, Pipelining, TensorFlow, Transfer Learning, Computer Vision and Annotation, Documentation
Web Development	Next JS, React JS, Tailwind CSS, APIs, HTML, CSS
Others	Figma, MS Office Suite (Word, Excel, PowerPoint), Google Workspace (Docs, Sheet etc.)