# MD. Mustakin Alam

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#### **EDUCATION**

**BRAC** University

Dhaka, Bangladesh

Bachelor of Science in Computer Science and Engineering

May 2019 – May 2023

CGPA: 3.96/4

Thesis: Federated Ensemble-Learning for Transport Mode Detection

in Vehicular Edge Network

BCIC College

Dhaka, Bangladesh

Higher Secondary Certificate (HSC) in Science

July 2016 - June 2018

GPA: **4.33/5** 

BCIC College (School Section)

Dhaka, Bangladesh

Secondary School Certificate (SSC) in Science

 $January\ 2014-June\ 2016$ 

GPA: **5/5** 

#### EXPERIENCE

Student Mentor BRAC University October 2021 – September 2022

Dhaka, Bangladesh

• Guided 1st year students with academic and non-academic obstacles during the first year of undergraduate university life

# Undergraduate Teaching Assistant

BRAC University

February 2022 – April 2023

Dhaka, Bangladesh

• As a teaching assistant, I attended lab classes, graded assignments, and provided 15 hours/week of consultation for students to assist them in problem-solving and exam preparation. I also provided learning materials, facilitated tutoring, and guided students in developing good study skills. Furthermore, I introduced students to research methodology and assisted them in writing research papers.

#### Research Interest

Artificial Intelligence, Machine Learning, Deep Learning, Natural Language Processing, Federated Learning

## **Publications**

- [1] MD. Mustakin Alam, Tanjim Ahmed, Meraz Hossain, Mehedi Hasan Emo, Md. Kausar Islam Bidhan, Md Tanzim Reza, Md. Golam Rabiul Alam, Mohammad Mehedi Hassan, Francesco Pupo, Giancarlo Fortino. "Federated Ensemble-Learning for Transport Mode Detection in Vehicular Edge Network". In: Future Generation Computer Systems, Under 2nd Revision at FGCS (2023) [Journal: Q1, IF: 7.307]
- [2] Rakin Mostafa, Md. Humaion Kabir Mehedi, MD. Mustakin Alam, Annajiat Alim Rasel. "Bidirectional LSTM and NLP based Sentiment Analysis of Tweets". In: 14th International Conference on Soft Computing and Pattern Recognition, SoCPaR (2022). DOI: 10.1007/978-3-031-27524-1\_62 [Conference]
- [3] Nafisa Nawer, Md. Shakiful Islam Khan, MD. Mustakin Alam, Md. Humaion Kabir Mehedi, Annajiat Alim Rasel. "Transformation of Visual Information Into Bangla Textual Representation". In: 2023 IEEE 13th Annual Computing and Communication Workshop and Conference, CCWC (2023) DOI: 10.1109/CCWC57344.2023.10099345 [Conference]

[4] Niloy Farhan, Ishrat Tasnim Awishi, Md. Humaion Kabir Mehedi, MD. Mustakin Alam, Annajiat Alim Rasel. "Ensemble of Gated Recurrent Unit and Convolutional Neural Network for Sarcasm Detection in Bangla". In: 2023 IEEE 13th Annual Computing and Communication Workshop and Conference, CCWC (2023) DOI: 10.1109/CCWC57344.2023.10099157 [Conference]

# PROJECTS

# Sentiment Analysis Using Bidirectional LSTM | Python, NLTK

July 2022 – September 2022

• This is a sentiment analysis project based on Bidirectional LSTM and Natural Language Processing. This project finds more than 90% accuracy while classifying sentiments.

### Traffic Flow Prediction: A Time Series Analysis Using LSTM | Python

September 2022 – October 2022

• It is a time series analysis project using LSTM neural network. In this project, the traffic flow is predicted as a regression problem to control the traffic flow.

#### Football Club Management System | HTML, CSS, PHP, MySQL

November 2021 – December 2021

• The web-app project was created for the completion of the Database Management System (CSE370) course at BRAC University.

Paper Tales | HTML, CSS, JS, MySQL, Laravel framework, PHP, Stripe API

June 2022 – August 2022

- This project was made for the completion of the course Software Engineering (CSE470) of BRAC University.
- This is a full-fledged web app project for an online book store built from scratch.

Cybot | Python, UptimeRobot, Discord Developer Portal

September 2021 – October 2021

- Cybot is a Discord bot that plays music for you fetching from youtube.
- It also returns some predefined texts.

ParkIn | UML, Java, Android XML, Google Map API

October 2022 – December 2022

- This is a system analysis and design project which is done for the completion of the course System Analysis and Design (CSE471) of BRAC University.
- ParkIn is an instant garage/parking spot rent solution.
- System Analysis is done by numerous UML diagrams. Also, a prototype Android application is made in Android Studio using Java, Android XML, and Google Map API.

# TECHNICAL SKILLS

Languages: Python, Java, C, PHP, Bash, MySQL, HTML/CSS, LaTeX, Markdown

Developer Tools: Visual Studio Code, PyCharm, IntelliJ, MS Office, Google Suite, Overleaf, Google Colab, Jupyter

Notebook, Cisco Packet Tracer

Frameworks & Libraries: Laravel, Pandas, NumPy, Matplotlib, Seaborn, Tensorflow, Scikit-learn

Hardware Interfacing: Arduino UNO, Raspberry Pi 4

#### EXTRACURRICULAR ACTIVITIES & COMPETITIONS

Senior Executive of Human Resources	September 2019 – October 2021
Robotics Club of BRAC University - ROBU	$Dhaka,\ Bangladesh$
Assistant Director of Human Resources	October 2019 – August 2020
BRACU Entrepreneurship Development Forum (EDF)	$Dhaka,\ Bangladesh$
Event Volunteer	June 2019
NRB Jobs Presents BRAC University National Career Fair 2019	$Dhaka,\ Bangladesh$
Olympiad Participant	October 2017
National Environment Olympiad, Art, & Poster Competition 2017	$Dhaka,\ Bangladesh$
Competition Participant	June 2022
Robi Datathon 2.0	$Dhaka,\ Bangladesh$

# AWARDS & ACHIEVEMENTS

Merit Scholarship Based on BRACU Academic Results

November 2020 – March 2023 Dhaka, Bangladesh

BRAC University