Md Monowarul Islam

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PROFILE STATEMENT

I am a final year Computer Science student. Passionate in problem solving, AI, and web development. I have hands-on experience in working with machine learning models, computer vision, and robotics. My goal is to leverage my programming skills and knowledge of core concepts in a dynamic environment where I can grow and contribute in solving real-world problems.

TECHNICAL SKILLS

- **Programming Languages:** Python, C++, C, Arduino
- **Python Libraries:** NumPy, Matplotlib, Scikit-Learn, Pandas, OpenCV, OpenGL
- **Web Development:** HTML, CSS, PHP, JavaScript, Flask
- **Databases:** MySQL, SQLite
- **Other Expertise:** LaTeX, Microsoft Office, Google Workspace

PROJECTS

Blood Donation Services | *HTML, CSS, PHP, MySql* **Jul '23**

- Developed a website where users can register and choose to become donors, request for blood donation, and respond to others' requests.
- Allowed registered donors to view and respond to donation requests, while admins can manage the procedures and act upon user report through an admin interface.

DSE Stock Closing Price Prediction | *Python, NumPy, Pandas, Matplotlib, Scikit-Learn* **May '24**

- Conducted a comparative analysis of five machine learning algorithms in predicting stock price trends using Dhaka Stock Exchange Dataset.
- The algorithms consist of Long-Short Term Memory (LSTM), Convolutional Neural Network (CNN), Linear Regression (LR), Support Vector Regression (SVR), and Random Forest Regression (RFR).

Exam Hall Monitoring System | *Python, C++, Arduino, OpenCV, YOLOv3, CNN* **Dec '24**

- Built the visual recognition system with a exam hall monitoring robot with ESP32-s3 camera module and Python, the module streams video over local network.
- Python program running on a machine connected to the network fetches and processes the streaming feed in real time to detect violations in exam hall regulations and alerts authorities on misconducts.

Blood Aid | *HTML, CSS, Python, Flask, SQLite* **May '25**

- Modernized the codebase of Blood Donation System using Python (Flask) and improved maintainability.
- Enhanced the information security using Bcrypt encryption for stored data.

Anomaly Detection in Network Traffic | *Python, Pandas, Scikit-Learn, XGBoost, CatBoost, TensorFlow* **May '25**

- Using BCCC-CIC-IDS-2017 data, trained and tested ensemble and deep learning model for detecting malicious network traffic.
- Conducted comparative analysis between ensemble learning models (Random Forest Classifier, XGBoost Classifier, CatBoost Classifier) and deep learning models (Long Short Term Memory, Multi Layer Perceptron).

EDUCATION

Brac University **Jun '21 – Present**
Bachelor of Science in Computer Science *CGPA 3.44*

Rajuk Uttara Model College **Jul '18 – Dec '20**
Higher Secondary Certificate *GPA 5.00*

EXPERIENCE & ACHIEVEMENTS

- Solved over **250 problems** on Codeforces.
- Secured 10th postion with Team Deathwish in **BRACU Intra University Junior Contest**, 2022.
- Participated in ACM ICPC Regional Preliminary in 2021 and 2023.

INTERESTS & HOBBIES

- Exploring advancements in graph theories and graph algorithms.
- Problem solving and participating in programming contests.
- Playing video games and watching movies.