Monirul Islam Mahmud

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Columbus Ave, Manhattan, New York 11219

Portfolio | GitHub | Google Scholar

EDUCATION

Fordham University, New York Aug 2024 – Ongoing
M.S. in Computer & Information Science *CGPA: 3.78*
$23,587 GSAS Centennial scholarship holder

North South University, Dhaka Feb 2020 – Dec 2023
B.Sc in Computer Science & Engineering *CGPA: 3.43*

PROFESSIONAL EXPERIENCES

Design Inclusion & Access Lab - DIAL Jul. 2023 – Jun. 2024
Graduate Research Assistant
- ∗ Collaborated on the 'Feasibility of Alternative Credit Scoring for the Credit Invincibles of Bangladesh' project funded by **NSU-CTRG (CTRG-23-SEPS-02)**.
- ∗ Working on 'Impact of Generative AI in Computer Science in context of Bangladesh', 'Trustworthy Attention Residual Convolutional Network based DeepFake Detection using LIME' and 'Federated Learning based secured Diabetic Foot Ulcer Detection using GradCam' project. ***Certificate***

Systech Datasoft, Dhaka Aug. 2023 – Dec. 2023
Trainee Engineer (Data Science)
- ∗ Developed an automated resume screening system for Systech Datasoft, Dhaka, using a dataset of public and collected candidate data to accurately predict suitability for positions with **97.92%** accuracy.
- ∗ Executed a **PDF parser** to extract candidate's email, name, and qualifications, enhancing the efficiency of the resume screening process. ***Certificate***

PROJECTS

Ethics and Accessibility: Generative AI in Computer Science Education in Bangladesh
- ∗ A qualitative approach to understand the attitudes, ethical concerns, and perceptions of generative AI tools among computer science students, computer science curricula and professional class in Bangladesh.

Empowering the Elderly: Federated Learning for Activity Recognition with Mobile Sensor Data
- ∗ Activity Recognition for Elderly people with **72000 collected** Accelerometer and Gyroscope data from our developed mobile app. **Federated Learning** Technique with **3 local models** are applied here for user data privacy. Also, XAI techniques - **SHAP** and **LIME** are used in this project.

Feasibility of Alternative Credit Scoring for the Credit Invincibles of Bangladesh
- ∗ Merged dataset of public and collected Bank data (both Quantitative and Qualitative data) is used here. Also, **Permutation Feature Importance, Morris Sensitivity Analysis** and **SHAP** are implemented to explain the Blackbox machine learning models.

RESEARCH PAPER

M. I. Mahmud, M. S. Reza, and S. S. Khan, **"Optimizing Stroke Detection: An analysis of different feature selection approaches,"** *Companion of the 2024 ACM International Joint Conference on Pervasive and Ubiquitous Computing, UbiComp '24, Australia,* pp. 142–146, Sep. 2024, doi:10.1145/3675094.3677602

SKILLS

Database & Software: MongoDB, Redis, Neo4j, SQL, Trello, Latex, Tableau, Jira, Excel.

Language & Framework: PHP, Python, Django, Flask, D3.js, Tensorflow, Seaborn, Scikit Learn.