Md. Saiful

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SUMMARY

A Computer Science and Engineering graduate from East West University, Dhaka, Bangladesh who maintained a scholarship and made the dean's list for six consecutive semesters, and possesses a strong interest in researching data science and machine learning in the hopes of making a substantial impact on the field.

RESEARCH INTERESTS

Data Science, Deep Learning, Machine Learning, Natural Language Processing, Image Processing, Bioinformatics, Blockchain

EDUCATION

East West University   Dhaka, Bangladesh
*B.Sc. in Computer Science and Engineering; **GPA: 3.65/4.00***   *April 2019 – Aug 2023*
                                                                                                            Thesis
MedicalBERT: A Medical Chatbot Built Using, BioBERT and GPT-2

WORK EXPERIENCE

East West University   Aftabnagar, Dhaka, Bangladesh
Graduate Teaching Assistant   *September 2023 – Present, 25hrs per week*
- **Courses Taught:** Statistics for Data Science, Machine Learning

East West University   Aftabnagar, Dhaka, Bangladesh
Graduate Teaching Assistant   *Jun 2023 – August 2023, 25hrs per week*
- **Courses Taught:** Structured Programming (Programming language: C), Cyber Security, Image Processing.

Techfinity   North Baridhara, Merul Badda, Dhaka-1212, Bangladesh
Assistant Engineer   *February 2022 – April 2023 (Part-time) 20hrs per week*
- Developed effective and affordable web design & web development services with expert customer support.
- Reviewed, validated, and scored the AI assistants for Attendance Devices.
- Scheduling maintenance IT.

East West University   Aftabnagar, Dhaka, Bangladesh
Undergraduate Teaching Assistant   *Jan 2022 – May 2023*
- **Courses Taught:** Structured Programming (Programming language: C), Image Processing.

Klatch Technologies   Assam, India (Remote)
AI Research and Development Intern   *Aug 2022 – Oct 2022*
- Implemented common NLP tasks using transformers such as named-entity recognition (NER), part-of-speech (POS) tagging, sentiment analysis, text classification, and extractive/generative question answering.
- Intent-based Query Model for Question Answering
- Worked on a custom Medical domain question-answering system by fine-tuning a BERT base model transformer. Evaluated the exact match and F1 scores using different Medical data sets and compared the evaluation results.

UDVASH   Motijheel Dhaka, Bangladesh (Part-time)
Teacher   *Jan 2020 – Aug 2021*
- Work with students, and indoctrinate them about problems they are having with the course material.
- Holding 21 hours per week's office hours.
- Lead discussion sessions with students.

Research Experience

Published

1. Md. Saiful, Sakib Haidar, S M Arafat Rahman,Nahid Reza, Ahmed Wasif Reza and Mohammad Samsul Arafin. **MRI-Based Brain Tumor Classification Using Various Deep Learning Convolutional Networks and CNN**, 6th International Conference on Intelligent Computing and Optimization. ICO 2023, LNNS 729, pp. 177–188, 2023. https://doi.org/10.1007/978-3-031-36246-0$_1$7

2. Md. Saiful, Arpita Saha, Faria Tabassum mim, Nafisa Tasnim, Ahmed Wasif Reza and Mohammad Samsul Arafin. **Brain MRI Classification for Alzheimer's Disease Based on Convolutional Network**, 6th International Conference on Intelligent Computing and Optimization. ICO 2023, LNNS 729, pp. 1–9, 2023. https://doi.org/10.1007/978-3-031-36246-0$_1$78

3. Md. Saiful, Nahid Reza, Maisha Mahajabin, Syada Tasfia Rahman, Farhana Alam, Ahmed Wasif Reza and Mohammad Samsul Arafin. **Green Banking Through Blockchain-Based Application for Secure Transactions**, 6th International Conference on Intelligent Computing and Optimization. ICO 2023, LNNS 729, pp. 924–937, 2023. https://doi.org/10.1007/978-3-031-36246-089

Manuscripts Under Review

1. Mahamudul Hasan and **Md. Saiful**, Taskeed Jabid, Maheen Islam, Md Ali, Riaz Murshed Rifat, Rubaya Bari, Nusrat Jahan and Tanni Rani Pal. **Solving Hamiltonian Path Problem Using DNA Computing**, International Conference on Green Energy, Computing and Intelligent Technology. (GEn-CITy 2023) 10-12 July 2023—University of Southampton Malaysia congratulates.

2. Md. Saiful, S M Arafat Rahman, M. Saddam Hossain Khan, Rashedul Amin Tuhin, and Md. Mohsin Uddin. **A Framework for a Healthcare Information Chatbot System Using BERT**, 26th International Conference on Computer and Information Technology December 13-15, 2023 Long Beach Hotel Cox's Bazar, Bangladesh.

3.Md. Saiful, Md. Sohel Rana, Hasanul Ferdaus , Ahmed Wasif Reza. **Education Certificate Storage and Verification using Blockchain and IPFS**, 26th International Conference on Computer and Information Technology December 13-15, 2023 Long Beach Hotel Cox's Bazar, Bangladesh.

Awards & Achievements

100% Merit Scholarship & Dean List For achieving a CGPA of 3.90 or above (3.97) out of 4.00 for three consecutive semesters (Summer 2022 -Summer 2023.

50% Merit Scholarship & Dean List For achieving a CGPA of 3.85 or above (3.75) out of 4.00 for three consecutive semesters (Summer 2021 -Summer 2022

Best Volunteer Award: Awarded to best Volunteer perform IEEE Computer Society BDC Summer Symposium 2023.

Awarded Best cadet: Awarded to the cadet who has outstanding performance among 200 cadets.

Projects

Trash Collector Smart Recycling Technology using Deep Learning Approach | *GitHub*
- I developed a system for real-time object detection and automated trash collection using deep learning techniques. The ResNet-152 model was employed for training, resulting in an impressive accuracy of 94%.

Credit Card Fraudulent Detection | *GitHub*
- Credit Card Fraud Detection using Machine Learning which is implemented with Decision Tree, Logistic Regression, SMOTE, XGboost Models get the Logistic regression model with SMOTE is the best model for its simplicity and less resource requirement.

MRI Image Segmentation for Detecting Brain Tumor | *GitHub*
- For Detecting Image I have done segmentation Making Mask Preparing data Building U-net CNN model Training the model Evaluation Model on some training data Evaluation model on the test data

Hotel Management System Covid-19 | *GitHub*
- Real-time Employee management system object and Face Recognition using RCNN, Redis Docker, Django
- Manage category of room, Health care, and payment. Based on the customer's situation suggest a hospital

SSL Certificate Generation and Authentication | *GitHub*
- Cyber Security Course Project SSL certificate generation using OpenSSL. Intuition Detection, Firebase.

Skills

Programming: C, C++, C#, PHP, JavaScript, Java, Python, R, MATLAB, SQL, MySQL

Technologies: Git, Docker, OpenCV, Arduino, Redis

Languages: Bangla (Native), English (Professional)

Competitive Programming

Problem-Solving: Solved numerous algorithmic problems and participated in online programming contests in various online judges including Codeforces, Codechef, UVa, and Atcoder.

Contest Trainer: I take classes on competitive programming at Binary Coder Bd.