Rakib Hossain **Rifat**

183/2, East Rampura, Dhaka, Bangladesh

+880 01521436179 | rakibhossain1521@gmail.com | rakib1521.github.io/rakibhossain | rakib1521 | rakib-hossain-rifat | Rakib Hossain Rifat

Professional Experience

Machine Learning Engineer
Silicon Orchard Limited
19 May 2023 - Present

Trainee Officer
AB Bank - IT Division
08 September 2022 - 28 May 2023

Machine Learning Instructor (Part-Time)
London Academy of IT
01 March 2023 - Present

Machine Learning Engineer
Polyfins Technology Inc
01 September 2021 - 06 September 2022

Education

Masters of Science (MSc.) in Computer Science and Engineering (Thesis Ongoing)
Brac University CGPA: 4.00 out of 4.00

Bachelor of Science (BSc.) in Computer Science and Engineering
Ahsanullah University of Science and Technology
2016-2021 CGPA: 3.386 out of 4.00

Higher Secondary Certificate (HSC)
Dhaka City College
2016 GPA: 4.83 out of 5.00

Secondary School Certificate (SSC)
Ideal School and College
2014 GPA: 5.00 out of 5.00

Technical Skills

- **Programming Languages: Python**, C, C++ , Java, MySQL, PHP, SqlLite, PL/SQL
- **Machine Learning,Deep Learning**
- **Libraries:** Tensorflow,Keras,Pytorch,Poutyne
- **MLOps:** Tensorboard, Mlflow, Wandb
- **Operating System:** Windows, Ubuntu
- **Designing Tools:** HTML, CSS
- **IDE:**VS code, CodeBlocks, NetBeans, PyCharm, Android Studio, MS Visual Studio, Arduino, MATLAB, Proteus, MS SQL Server, Sublime Text, emu8086
- **Others:** GitHub,Microsoft Office

Research/Thesis

Rifat, R. H., Shruti, A., Kamal, M., Sadeque, F. (2023, July). **ACSMKRHR at SemEval-2023 Task 10: Explainable Online Sexism Detection (EDOS)**. In Proceedings of the 17th International Workshop on Semantic Evaluation (SemEval-2023) (pp. 724-732). link: ACSMKRHR at SemEval-2023 Task 10: Explainable Online Sexism Detection(EDOS)

A. C. Shruti, **R. H. Rifat**, M. Kamal and M. G. R. Alam, **"A Comparative Study on Bengali Speech Sentiment Analysis Based on Audio Data,"** 2023 IEEE International Conference on Big Data and Smart Computing (BigComp), Jeju, Korea, Republic of, 2023, pp. 219-226, doi:10.1109/BigComp57234.2023.00043 .

Kamal, M., **Rifat, R. H.**, Shruti, A. C., Alam, M. G. R. (2023, April). **Multi-criteria Decision Theoritic Approach for Tour Package Selection using Fuzzy AHP and TOPSIS Methods: A Case Study on Cox's Bazar.** In 2023 IEEE 8th International Conference for Convergence in Technology (I2CT) (pp. 1-7). IEEE. doi:10.1109/I2CT57861.2023.10126334

Facial Shape-Based Eyeglass Recommendation Using Convolutional Neural Networks
Rakib Hossain Rifat, Sunzida Siddique, Laxmi Rani Das, Mohd Ariful Haque ***2023 IEEE Symposium Series on Computational Intelligence (SSCI), and Systems, accepted for publication.***

Federated Learning for Potato Leaf Disease Detection using CNN
Marufa Kamal, **Rakib Hossain Rifat**, Abanti Chakraborty Shruti and Annajiat Alim Rasel. ***The 2023 International Conference on Digital Image Computing: Techniques and Applications, accepted for publication.***

Comparison of Machine Learning Models for Early Prediction of Diabetes with LIME Interpretability
Abanti Chakraborty Shruti, Marufa Kamal, **Rakib Hossain Rifat**,Ehsanur Rahman Rhýthm,Md Humaion Kabir Mehedi and Annajiat Alim Rasel. ***2023 IEEE 11th Region 10 Humanitarian Technology Conference (R10-HTC), and Systems, accepted***

for publication.

- **Challenges and Opportunities of Computational Intelligence in Industrial Control System (ICS)**
  Sunzida Siddique, Mohd Ariful Haque, **Rakib Hossain Rifat**, Laxmi Rani Das, Sajedul Talukder, Syed Alam, Kishor Datta Gupta ***2023 IEEE Symposium Series on Computational Intelligence (SSCI), and Systems, accepted for publication.***

- **Knee Osteoarthritis Disease Detection using Federated Learning and Explainable AI**
  Rakib Hossain Rifat, Abanti Chakraborty Shruti, Marufa Kamal, M. G. R. Alam. ***26th International Conference on Computer and Information Technology (ICCIT), under review.***

- **Facial Expression Recognition: A Comparison on Various Aspects**
  Undergraduation thesis. This study seeks to simplify the facial expression identification system by using custom CNN architecture; this system can recognize seven facial expressions (Fear, Sad, Neutral, Surprise, Angry, Disgust, and Happy), and we employed several custom CNN architecture and transfer learning models to do this. We compared 8 bespoke CNN models and 3 transfer learning methods using two different datasets.

Undergraduate Projects

- **Tour Package Recommendation System in Cox's Bazar Using TOPSIS and Fuzzy AHP**
  In this Academic project , I have made my contributions in building a recommendation system using TOPSIS and Fuzzy AHP.
  Language: Python Tools: Google Colab
- **A Comparative Study on Bengali Speech Sentiment Analysis Using Machine Learning and CNN Models**
  In this Academic project , I have made my contributions in creating A Comparative Study on Bengali Speech Sentiment Analysis Using Machine Learning and CNN Models .
  Language: Python Tools: Google Colab
- **Eczema Severity Score Prediction Using Deep Learning Techniques**
  In this project of Polyfins Technology Inc, I have made my contributions in predicting Eczema severity score from Images.
  Language: Python Tools: Google Colab
- **Body Part Segmentation And Separation From Full Body Image**
  In this project of Polyfins Technology Inc, I have made my contributions in creating a pipeline that can segment and separate full body image into different part.
  Language: Python Tools: Google Colab
- **Image Quality Assessment Using Deep Learning Techniques**
  In this project of Polyfins Technology Inc, I have made my contributions in Image Quality Assessment.
  Language: Python Tools: Google Colab
- **"FixMatch: Simplifying Semi-Supervised Learning with Consistency and Confidence" Google Colab implementation**
  This implementation is done for Multiclass Classification, Multi Label Classification and Multi output Classification.
  Language: Python Tools: Google Colab
- **SimCLR A Simple Framework for Contrastive Learning of Visual Representations**
  Google Colab implementation of SimCLR using pytorch
  Language: Python Tools: Google Colab
- **Harassment Detection from Social Media Bangla Comments using Deep Learning**
  A system to identify harassment from the social media Bangla comments
  Language: Python Tools: Google Colab
- **Gender Detection From Bangla Handwritten Images**
  Gender Detection From Bangla Handwritten Images using Logistic Regression and Deep Neural Network
  Language: Python Tools: Google Colab
- **Bengali Handwritten Digits Classification**
  Bengali handwritten digits classification from image using Logistic Regression and Deep Neural Network
  Language: Python Tools: Google Colab
- **Face Mask Detection**
  A binary classification model that can classify some one using mask or not.
  Language: Python Tools: Google Colab
- **Pneumonia X-ray Detection**
  This model can detect if there is any abnormality in chest X-ray image.
  Language: Python Tools: Google Colab

Certifications and Participations

- Problem-Solving (Basic) from HackerRank.
- Python (Basic) from HackerRank.
- SQL (Intermediate) from HackerRank.
- Deep learning specialization from Coursera.
- DeepLearning.AI TensorFlow Developer from Deeplearning.ai on Coursera.
- Cleaning Data in Python from Datacamp.
- Introduction to Importing Data in Python from Datacamp.
- Introduction to Data Science in Python from Datacamp.

Achievements

- Awarded **100% tuition fee waiver** for Postgraduate (M.Sc.) result.

Extra Curricular Activities

- **Mentor: DeepLearning.AI TensorFlow Developer Professional Certificate Specialization at Deep Learning.AI On Coursera**
- **Mentor: TensorFlow: Data and Deployment Specialization at Deep Learning.AI On Coursera**
- **Reviewed research papers as a Peer Reviewer for IEEE Fourth International Conference on Communication, Circuits and Systems in 2023**
- **Reviewed research papers as a Peer Reviewer for IEEE Symposium Series on Computational Intelligence (SSCI) in 2023**
- Former Vice President at AUST Blood Donation Club
- Former General Secretary at Ideal Science And Technology Aiming Research Council.

Reference

Dr. Md. Golam Rabiul Alam
Professor
Department of Computer Science and Engineering
BRAC University
Email: rabiul.alam@bracu.ac.bd
Contact No: (+880) 1797347635

Dr. Kishor Datta Gupta
Assistant Professor
Clark Atlanta University
Email: kgupta@cau.edu