

# Rakib Hossain Rifat



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## Professional Experience

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|  <b>Machine Learning Engineer</b><br>Silicon Orchard Limited<br>19 May 2023 - Present |  <b>Machine Learning Engineer</b><br>Polyfins Technology Inc<br>01 September 2021 - 06 September 2022 |
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## Education

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|  <b>Masters of Science (MSc.) in Computer Science and Engineering (Thesis Ongoing)</b><br>Brac University   CGPA: <b>4.00</b> out of 4.00 |  <b>Bachelor of Science (BSc.) in Computer Science and Engineering</b><br>Ahsanullah University of Science and Technology<br>2016-2021   CGPA: 3.386 out of 4.00 |
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## Achievements

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

## Conference/Workshop

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

## Undergraduate Projects

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### **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 im-**

### **plementation**

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

## Technical Skills

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⚙️ **Programming Languages:** Python, C, C++, Java

⚙️ **Machine Learning, Deep Learning**

⚙️ **Libraries:** Tensorflow, Keras, Pytorch, Poutyne

⚙️ **MLOps:** Tensorboard Wandb

⚙️ **Operating System:** Windows, Ubuntu

⚙️ **IDE:** VS code, PyCharm, MATLAB

⚙️ **Others:** GitHub, Microsoft Office

## Extra Curricular Activities

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🌟 **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**

🌟 **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**

🌟 **Former Vice President at AUST Blood Donation Club**

🌟 **Former General Secretary at Ideal Science And Technology Aiming Research Council.**

## Certifications and Participations

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- 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.

## Language Proficiency

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- **English:** IELTS-7.5 (L:8.5,R:7.5,W:6.5,S:6.5)

## Reference

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### **Dr. Md. Golam Rabiul Alam**

Professor

Department of Computer Science and Engineering

BRAC University, Dhaka, Bangladesh

**Email:** rabiul.alam@bracu.ac.bd

### **Dr. Kishor Datta Gupta**

Assistant Professor

Department of Cyber-Physical Systems

Clark Atlanta University, Atlanta, Georgia

**Email:** kgupta@cau.edu