



# Rakib Hossain Rifat

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## About Me

Looking for opportunities to build my career in software industry or in machine learning sector that would help me in achieving greater practical excellence through a continuous learning process, perseverance, hardworking nature and good communication skills, which will help me to contribute for the growth of the organization.

## Experience

### 📁 Machine Learning Engineer

Polyfins Technology Inc

September 2021 - Present

#### Responsibilities:

- ✓ Study and transform data science prototypes.
- ✓ Design machine learning systems.
- ✓ Research and implement appropriate ML algorithms and tools.
- ✓ Develop machine learning applications according to requirements.
- ✓ Select appropriate datasets and data representation methods.
- ✓ Perform statistical analysis and fine-tuning using test results.
- ✓ Train, evaluate, and deploy AI systems when necessary.
- ✓ Extend existing ML libraries and frameworks.
- ✓ Keep abreast of developments in the field.

## Education

### 🎓 Masters of Science (MSc.) in Computer Science and Engineering (Ongoing)

Brac University

### 🎓 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 College

2014 GPA: 5.00 out of 5.00

## Technical Skills

⚙️ **Programming Languages:** Python, C, C++ , Java, MySQL, PHP, SQLite, 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

## Personal Skills

- **Language:** Fluent Bangla, English.
- Hardworking personality.
- Always eager to learn new things.
- Highly comfortable working in a group or independently.

### **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 someone 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

### **Handwritten Digits Classification**

This model can detect handwritten digits from Image.

Language: Python    Tools: Google Colab

### **Audio Book Using Python**

Python Desktop application that can read PDF.

Language: Python    Tools: VS code

### **Production Prediction**

Using Distributed database system it can predict loss/profit and production.

Language: PL/SQL    Tools: SQL++

### **Smart Home**

A hardware project

Language: Arduino    Tools: Arduino IDE

### **Chaldaldotcom**

A E-commerce website

Language: PHP, HTML, CSS, JavaScript    Framework: Bootstrap    Tools: Sublime Text

### **Mobile Financial Service**

A database project that contains mobile financial service features

Language: Java, MSSQL    Tools: Netbeans

### **The Canteen**

Android Application for ordering food

Language: Java, XML    Tools: Android Studio

## Research/Thesis

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### **Facial Expression Recognition: A Comparison on Various Aspects**

It was my undergraduate thesis. This study aims to simplify the facial expression recognition system by using custom CNN architecture, this system can identify seven facial expressions (Fear, Sad, Neutral, Surprise, Angry, Disgust, Happy) and for this, we have used multiple custom CNN architecture and transfer learning models. Using two different datasets, we have compared them between 8 custom CNN models and 3 transfer learning models.

## Certifications

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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.

## Extra curricular

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- ✿ **Mentor and Alpha Tester at Deep Learning.AI**
- ✿ Former Vice President at AUST Blood Donation Club
- ✿ Former General Secretary at Ideal Science And Technology Aiming Research Council.

## Reference

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### **Ms. Qamrun Nahar Eity**

Assistant Professor

Department of Computer Science and Engineering

Assistant Proctor-AUST

Ahsanullah University of Science and Technology

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