Rakibul **Islam**

AI/ML Engineer

Personal

Rakibul Islam
Gender: Male
Marital Status: Unmarried
Date of Birth: 21 October 2000
Address: Joydepur,
Gazipur-1700
Nationality: Bangladeshi

Areas of specialization

.NET · Python · LLM
· Machine Learning · Deep
Learning · Data Analytics

Soft skills

Fast Learning
Documentation
English Communication
Presentation
Analytical Thinking
Problem Solving
Leadership
Management
Teamwork
Curiosity to Learn
Helpful
Prompt Engineering
Utilization of Technology

Interests

Automation
Artificial Intelligence
Data Science
Research
Technology & Innovation

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ABOUT ME

I am passionate about CSE, particularly in the areas of Intelligent Systems, Automation, Data Science, and Artificial Intelligence. With the ongoing AI revolution, I believe systems should not only be functional but also intelligent. I thrive on exploring new concepts and technologies within these domains and am highly motivated to continuously learn and grow. I believe that the ability to learn quickly is the most crucial skill for the future. In today's world, anyone with dedication can learn anything. My curiosity drives me to understand how intelligent systems work, extract meaningful insights from big data, and develop systems capable of acting like humans—or even beyond human capabilities. I am particularly fascinated by the opportunity to create intelligent software that has practical, real-world applications.

As a recent graduate, may not yet have extensive professional experience, but I have actively engaged in academic and personal projects, research, and industry exposure. These experiences have provided me with a strong foundation, as well as hands-on experience applying these concepts to solve real-world problems. I am constantly eager to learn, turn my ideas into reality, and make an impact in the industry. My drive to implement innovative solutions and develop intelligent systems is matched by my commitment to continuous learning and professional growth. I am excited to contribute to the advancement of Intelligent Systems while making meaningful contributions to industry applications.

EXPERIENCE

Oct 2024

Jr. Software Programmer
GENUINE TECHNOLOGY & RESEARCH LIMITED (GTR) · Dhaka 📍

Promoted to Jr. Software Programmer within just 2 months following a successful internship at GTR. Worked on the Alfred, HRM software project, implementing features using ASP.NET MVC and integrating cutting-edge technologies such as CrewAi and Retrieval-Augmented Generation (RAG) with LLMs to enhance automation capabilities.

Aug 2024–Oct 2024

Python Intern
GENUINE TECHNOLOGY & RESEARCH LIMITED (GTR) · Dhaka 📍

As a Python Intern at GTR, I was responsible for enhancing system intelligence by contributing to projects, including the implementation of Alfred and HRM software using ASP.NET MVC. I integrated advanced tools such as CrewAi and leveraged Retrieval-Augmented Generation (RAG) with LLMs to improve system capabilities. My responsibilities included automating workflows, developing high-performance web APIs, and designing and managing optimized databases. I have gained experience with various technologies, including ASP.NET, design patterns, Docker, and Apache Airflow. I am skilled in developing applications using Flask, CrewAI, RAG, and LLM frameworks (Hugging Face, Lama-Index, Ollama). My expertise includes using Selenium for automation, FastAPI for building APIs, and SQLAlchemy for database management. Additionally, I have hands-on experience with object detection, C, ASP.NET Core 8 (MVC, Web API), PostgreSQL (database ERM, schema design, normalization), and front-end technologies like HTML, CSS, JavaScript, and Bootstrap for responsive web design.

2022–2024 Past | **Co-Founder and CTO**
Niharon Technologies · Dhaka 📍

Niharon Technology is a small start-up company. As a co-founder, I was responsible for the development of the company's technological vision and strategy while actively participating in its day-to-day operations. In this role, I lead teams in developing and implementing various projects. I played various responsibilities such as creating and communicating, monitoring end-to-end product development lifecycle, and ensuring quality. Collaborated closely with cross-functional teams designers, developers, and marketing. Engaged with clients to understand their needs, and gather feedback.
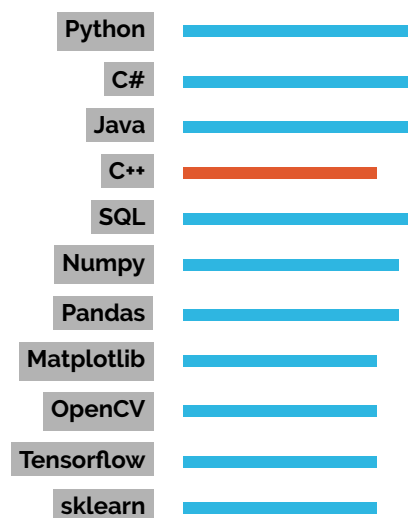
2022–2024 | **General Member**
UIU App Forum, UIU Entrepreneur Development Forum · UIU 📍

Relevant Skills

- **Multi Agent System (Crew AI)**
- **LLM (LlamaIndex, LangChain, Hugging Face)**
- **RAG (Retrieval-Augmented Generation)**
- **Web Scraping (Selenium, BS4, Scrapy)**
- **Machine Learning and Deep Learning**
- **ASP.NET Core 8 MVC (Repository, Unit of Work Pattern)**
- **Django**
- **HTML, CSS, JS, and Bootstrap**
- **API (FastAPI, REST API)**
- **Database Design, ERD, Optimization (SQL, PostgreSQL, Oracle)**
- **ORM Technology (SQLAlchemy, Microsoft Entity Framework)**
- **Design Pattern (Creational, Structural, Behavioral, Concurrency, Architecture)**
- **Data Structure and Algorithms**
- **Data Cleaning and Preparing**
- **Data Visualization**
- **Exploratory Data Analysis (EDA)**
- **Statistical Analysis**
- **Data Mining**
- **Deep Learning Frameworks**
- **Computer Vision Libraries**
- **Application of RNN, NLP**
- **Image Processing**
- **Docker**
- **ETL (Apache Airflow)**
- **Linux CLI, Shell Scripting**

Programming

- Python
- C#
- Java
- C++
- SQL
- Numpy
- Pandas
- Matplotlib
- OpenCV
- Tensorflow
- sklearn

Others

- Good Knowledge in **Computer Vision, Natural Language Processing (NLP), Convolutional Neural Networks (CNN), Graph Neural Networks (GNN), Generative Adversarial Networks (GAN), Sequence Modeling**
- Familiar with **Seborn, Pytorch, Data Dashboarding, Autoencoders (AE), Vision transformer (ViT), AutoML, Flutter, JavaFX**, etc
- Experienced in **Powerpoint, Excel, Docs**

Education

2020–2024	**B.Sc.in Computer Science and Engineering** United International University · Dhaka 📍 CGPA: 3.57
2019	**Higher Secondary Certificate (HSC)** Gazipur Metropolitan College · Gazipur 📍
2017	**Secondary School Certificate (SSC)** Rani Bilashmoni Government Boys' High School · Gazipur 📍 Grade: A+

Certificates

Machine Learning Specialization
IBM Data Science Professional Certificate
IBM AI Engineering Professional Certificate
Deep Learning Specialization
Statistics - Google
British Council - IELTS English
Presenting Author - ICEEICT 2024

Publications

2024	*Deep Multi-Modal Approach for Protein Function Prediction and Classification, IEEE*
2024	*From Pixels to Diagnosis: Convolutional Neural Networks in Tuberculosis Screening , IEEE*
2024	*Risk Minimization by Early Readmission Prediction for Diabetes Patients: A Data-Driven Machine Learning Approach , IEEE*
2024	*Ensemble Deep Learning for Real-Time Textile Fabric Defect Detection and Classification Using YOLOv8 and CNNs, ACM*
2024	*Co-relation-based Feature Extraction to Improve Classification Accuracy, IEEE*
2024	*Smart Grid Stability Prediction for Efficient Power Management Using Machine Learning, IEEE*

Relevant Projects

1. Fabric Defect Detection & Classification (Computer vision, CNN, Ensemble Methods)
2. Weapons Object detection (Computer vision, Transfer Learning, CNN)
3. Tuberculosis Screening (Computer vision, CNN)
4. Diabetic Retinopathy Detection (Computer vision, CNN)
5. Face Recognition using OpenCV (Computer vision, CNN)
6. Neural Network, CNN from Scratch (Pyhton, Numpy)
7. Protein Function Prediction & Classification (DNN,Pyhton,Visualization)
8. Text Sentiment Analysis (NLP)
9. Customer Purchase Analysis (Pre-processing, EDA, Visualization, ML, Evaluation)
10. Analyzing Stock Performance (Web scraping, EDA, Visualization, Dashboarding)
11. House Pricing Analysis (Visualization, Model Development, Evaluation)
12. Bengali Text with Regional Dialects to IPA (NLP)
13. House Rental Website (DBMS, SQL)
14. Automatic Code Evaluation System (Python, Django)
15. Job Application Automation Software (.NET MVC 8, FastAPI, Ollama, CrewAI)
16. HRM Software (.NET MVC 8, JS, Boostrap, Tabulator)
17. Domain Specific AI Assistant (RAG, Langchain, LlamaIndex)) **etc.**

References

Dr. Mohammad Nurul Huda
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