Rafiul Hoque

659/2,west kazipara,Mirpur,Dhaka

+8801712075433 | ✉ rafiulhoque21@gmail.com | 🏠 rafiulhoque.netlify.app/ | ⌨ https://github.com/hoque21 | 🔗
https://www.linkedin.com/in/rafiul-hoque-967164232/

About Me

I am a passionate Machine Learning Engineer with a strong background in developing intelligent algorithms and data-driven solutions. With a solid foundation in statistics, programming and data analysis, I specialize in developing and deploying machine learning models that enhance accuracy and performance.

Education

Green University of Bangladesh
B.Sc. in Computer Science and Engineering

Dhaka, Bangladesh
Feb 2020 - Jun 2024

- **CGPA:** 3.20/4.00
- **Major:** Machine Learning
- **Thesis:** "Transformer-Based Sentiment Analysis for Classification of Non-depressive and Suicidal Thought in Bangla Text."

Government Science College
Higher Secondary Certificate (HSC)

Dhaka, Bangladesh
Jul 2017 - May 2019

- **Final Grade:** 4.50/5.00
- **Field of Study:** Science

Liaquat Ali Smriti School and College
Secondary School Certificate (SSC)

Rajbari, Bangladesh
Jan 2012 - Mar 2017

- **Final Grade:** 5.00/5.00
- **Field of Study:** Science

Work Experience

MM IT Soft Ltd.
Front End Developer (Intern)

Dhaka, Bangladesh
Oct. 2023 - Feb. 2024

- Designed and developed dynamic, high-performance web interfaces that enhanced user experience and engagement through innovative use of HTML, CSS, JavaScript, and React.
- Collaborated in an agile team environment to implement UI features, integrating RESTful APIs to ensure seamless communication between front-end and back-end services.

Skills

Programming Languages	Python, JavaScript, SQL, HTML, CSS
Web Development	React, Node.js, Tailwind CSS, Firebase
Data Science & AI	Natural Language Processing, Computer Vision, IBM SPSS
Tools & Workflow	Git, Jira, Postman, Software Testing

Projects

Image Caption Generator Project
Presenter for Image Caption Generator

- Developed a deep learning-based application that generates descriptive captions for images using CNNs and RNNs.
- Leveraged advanced techniques in computer vision and natural language processing to process visual inputs and generate textual descriptions.

Heart Disease Prediction Project
Project Lead for Heart Disease Prediction

- Built an AI tool that predicts the risk of heart disease by analyzing medical data such as blood pressure and cholesterol levels.
- Utilized machine learning algorithms to support preventive healthcare and personalized insights.
- Technologies: Python, TensorFlow, Machine Learning.
- Link: `https://github.com/hoque21/Heart-Disease-Prediction`

Fake News Detection Project

PROJECT LEAD FOR FAKE NEWS DETECTION

- Created a machine learning application to identify fake news by analyzing textual content and source credibility.
- Used natural language processing to detect misinformation with high accuracy.
- Technologies: Python, Machine Learning, Natural Language Processing.
- Link: `https://github.com/hoque21/Fake-news-Detection`

Diabetes Prediction Project

PROJECT LEAD FOR DIABETES PREDICTION

- Developed an AI tool that predicts an individual's risk of developing diabetes by analyzing factors like age, BMI, and glucose levels.
- Focused on early detection and promoting better health outcomes through personalized insights.
- Technologies: Python, Scikit-Learn, Machine Learning.
- Link: `https://github.com/hoque21/Diabetes_Prediction`

Doctor Appointment System Project

PROJECT LEAD FOR DOCTOR APPOINTMENT SYSTEM

- Developed a user-friendly web application for booking doctor appointments with secure authentication and notifications.
- Improved interaction between healthcare providers and patients.
- Technologies: HTML, CSS, Tailwind, JavaScript, React, Firebase.
- Link: `https://github.com/hoque21/Doctors-Appointment-Project-Client-site`

School Management System Project

PROJECT LEAD FOR SCHOOL MANAGEMENT SYSTEM

- Created a comprehensive web application for managing school operations, including task scheduling and real-time updates.
- Provided a streamlined experience for teachers, students, and administrators.
- Technologies: HTML, CSS, Tailwind, JavaScript, React, Firebase.
- Link: `https://github.com/hoque21/Doctors-Appointment-Project-Client-site`

Personal Portfolio Website Project

PROJECT LEAD FOR PERSONAL PORTFOLIO

- Developed a personal portfolio website to showcase skills, projects, and experiences.
- Provided a professional online presence for clients, employers, and collaborators.
- Technologies: HTML, CSS, Tailwind, JavaScript, React.
- Link: `https://rafiulhoque.netlify.app/`

Publications

Depressive and Suicidal Text-Based Sentiment Analysis in Bangla Using Deep Learning Models

Business & IT

AUTHOR   *2024*

- Published a study on sentiment analysis for detecting depressive and suicidal tendencies in Bangla text using deep learning models.
- DOI: 10.14311/bit.2024.02.13

Transformer-Based Sentiment Analysis for Classification of Non-depressive and Suicidal Thought in Bangla Text

Under Review

CO-AUTHOR   *2025*

- Paper on the use of transformer-based models to classify non-depressive and suicidal thoughts in Bangla text.

Estimation of Postpartum Morbidities and Risk Factors of Women Presented for Postpartum Visit at a MOU, eThekwini, South Africa

Under Review

CO-AUTHOR   *2024*

- Research on estimating postpartum morbidities and associated risk factors among women in South Africa.

Prevalence and Risk Factors for Postpartum Depression in eThekwini District of KwaZulu-Natal Province of South Africa

European Journal of Medical and Health Sciences

CO-AUTHOR   *2025*

- DOI: 10.24018/ejmed.2025.7.1.2248

Trends and Factors for Adverse Pregnancy Outcomes of Low-risk Pregnancy from a Midwife Obstetric Unit in South Africa, 2018–2022

Accepted

CO-AUTHOR   *2025*

- Study under review regarding trends and factors contributing to adverse pregnancy outcomes in South Africa.

The Risk Factors for Neonatal Deaths: An Audit of Neonatal Care - A Retrospective Cross-sectional Study

Accepted

CO-AUTHOR

2025

- Conducted a retrospective cross-sectional study identifying key risk factors associated with neonatal mortality based on clinical audits.

HONOURS AND AWARDS

Career Webinar Participation

Online

PARTICIPANT

16/08/2024

- Participated in a career development webinar focused on job application tips and professional skills.

Graphic Design Course

Good Approach

CERTIFICATE OF ACHIEVEMENT

- Completed a 3-month Graphic Design Course at Good Approach and received a certificate of achievement.

Creative Talent Search Competition

Upazila Creative Talent Hunt Committee

AWARD WINNER

10/05/2014

- Awarded 'Best Talent of the Year' for outstanding performance in Mathematics and Computer at the Upazila-level Creative Talent Search Competition.
- Recognized for excellence among school-level students.
- **Certificate:** View Certificate

Deep Learning for Beginners Course

Online

COURSE GRADUATE

20/12/2024

- Completed a foundational course in Deep Learning, gaining insights into AI and machine learning principles.

General Grade Scholarship Award

Rajbari Zila Kindergarten Association

SCHOLARSHIP RECIPIENT

2009

- Awarded the General Grade Scholarship for outstanding academic performance in the 2005 scholarship examination.

General Grade Scholarship Award

Bangladesh Kindergarten Owners Association

SCHOLARSHIP RECIPIENT

2008

- Earned the General Grade Scholarship for exceptional academic achievement in the 2005 scholarship examination.
- This award acknowledged dedication to studies and exceptional performance during early educational years.

Extracurricular Activities

1st Government Science College Photography Club National Photography Festival

Government Science College, Dhaka

PARTICIPANT

20/01/2018 – 21/01/2018

- Engaged in a variety of activities aimed at enhancing photography skills and promoting visual storytelling.
- Participated in workshops and had the opportunity to showcase personal photography projects.
- Learned from experienced photographers and collaborated with peers.

Dhaka University Science Festival

Dhaka University, Dhaka

PARTICIPANT

04/08/2017

- Took part in the Dhaka University Science Festival , celebrating scientific research and innovation.
- Participated in interactive displays, experiments, and scientific projects across various disciplines.

3rd District Scout Gathering

Bir Muktijoddha Shaheed Khushi Railway Ground, Rajbari

PARTICIPANT

15/01/2016 – 19/01/2016

- Engaged in activities that emphasized teamwork, leadership, and community service.
- Collaborated with fellow scouts to develop problem-solving and interpersonal skills.

3rd Baliakandi Upazila Scout Gathering

Baliakandi Stadium, Baliakandi

PARTICIPANT

25/12/2015 – 29/12/2015

- Participated in scout-related tasks designed to foster collaboration and leadership abilities.
- Promoted teamwork and personal development through outdoor activities and challenges.

4th National Power & Energy Camp

Participant
- Attended workshops, lectures, and group projects on renewable energy and sustainability.
- Collaborated with peers to develop creative approaches to energy challenges.

References

Professor and Dean

Faculty of Science and Engineering, Green University of Bangladesh

Prof. Dr. Md. Saiful Azad

Email: dean@fse.green.edu.bd

Assistant Professor

Department of Computer Science and Engineering, Green University of Bangladesh

Mohammad Ehsan Shahmi Chowdhury

Email: ehsan@cse.green.edu.bd

Phone: (+880) 01537691938

Research Supervisor

Bangabandhu Sheikh Mujibur Rahman Digital University

Md. Moshiur Rahman

Email: moshiur0001@bdu.ac.bd

Phone: (+880) 01758310033