Rafiul Hoque

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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   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."

Skills

- **Programming Languages:** Python,Natural Language Processing, JavaScript, HTML, CSS

- **Web Development:** React, Node.js, TailwindCSS, Firebase

- **Tools & Workflow:** Git, Jira, Postman, Software Testing, Power BI, IBM SPSS

Experience

Research Assistant, Kwadabeka Community Health Centre, South Africa   July 2024 – Present
Supervisor: Dr. Akm Monjurul Hoque (PhD)
Contact: mhoque75@gmail.com

Frontend Developer (Intern), MMIT Soft Ltd. – 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.

Publications

Depressive and Suicidal Text-Based Sentiment Analysis in Bangla Using Deep Learning Models   2024
Business IT

Rafiul Hoque, Md. Samiul Islam, Sagor Sarkar, Sultana Umme Habiba, Md. Moshiur Rahman, Md. Rajibul Palas, Muhammad Hoque

10.14311/bit.2024.02.13

Prevalence and Risk Factors for Postpartum Depression in eThekwini District of KwaZulu-Natal Province of South Africa   2025
European Journal of Medical and Health Sciences

Akm Monjurul Hoque, Maariyah Hoque, **Rafiul Hoque**, Somaya Buckus

10.24018/ejmed.2025.7.1.2248

Transformer-Based Sentiment Analysis for Classification of Non-depressive and Suicidal Thought in BanglaText   2025(Under Review)

Md. Samiul Islam, **Rafiul Hoque**, Md. Samiul Islam, Sagor Sarkar, Md. Moshiur Rahman, Md. Rajibul Palas, Muhammad Hoque

Estimation of Postpartum Morbidities and Risk Factors of Women Presented for Postpartum Visit at a MOU, eThekwini, South Africa 2025 (Under Review)
South African Journal of Public Health

Monjurul Hoque, Dr Buckus, Maariyah Hoque, **Rafiul Hoque**

Trends and Factors for Adverse Pregnancy Outcomes of Low-Risk Pregnancy from a Midwife Obstetric Unit in South Africa, 2018–2022 2025 (Accepted)
European Journal of Clinical Medicine

Akm Monjurul Hoque, Maariyah Hoque, **Rafiul Hoque**, Somaya Buckus

The Risk Factors for Neonatal Deaths: An Audit of Neonatal Care – A Retrospective Cross-Sectional Study 2025 (Accepted)
European Journal of Medical and Health Sciences

Akm Monjurul Hoque, Maariyah Hoque, **Rafiul Hoque**, Mir Anwar, Somaya Buckus

Trends and Risk Factors for Low-Birth-Weight and Preterm Deliveries Between 2018–2022 in a PHC Setting of South Africa 2025 (Accepted)
European Journal of Clinical Medicine

Akm Monjurul Hoque, Maariyah Hoque, **Rafiul Hoque**, Somaya Buckus

Clinical Audit of Birth Before Arrival at a Midwife Obstetric Unit from South Africa During 2018 to 2022 2025 (Under Review)
European Journal of Clinical Medicine

Dr Akm Monjurul Hoque, Maariyah Hoque, **Rafiul Hoque**, Dr Mir Anwar, Dr Somaya Buckus, Dr Abm Mahbub ul Alam

Projects

Heart Disease Prediction & Diabetes Prediction 2025
- Developed an AI tool to predict heart disease risks by analyzing medical data such as blood pressure and cholesterol levels.
- Technologies: Python, TensorFlow, Machine Learning.

Fake News Detection Project 2023
- Created a machine learning application to identify fake news by analyzing textual content and source credibility.
- Technologies: Python, Machine Learning, Natural Language Processing.

References

Prof. Dr. Md. Saiful Azad **Professor and Dean**
Email: dean@fse.green.edu.bd
Department of Computer Science and Engineering,
Green University of Bangladesh

Mohammed Ehsan Shahmi Chowdhury **Assistant Professor**
Email: ehsan@cse.green.edu.bd
Department of Computer Science and Engineering,
Green University of Bangladesh