MD RAKIB HASAN

A motivated and sociable graduate with strong interpersonal skills and a passion for learning. Hardworking and performance-driven, aim to grow professionally through hands-on experience and mentorship in a dynamic organization. Eager to apply skills in data analysis, customer segmentation, and problem-solving and seeking a Trainee role to develop expertise in sales, marketing, and strategic decision-making while gaining exposure to cross-functional business operations.

Contact Information

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Areas of Expertise

BUSINESS INTELLIGENCE & ANALYSIS

Business Intelligence (Power BI, Tableau)
Data Analysis (Python, R, SQL)
Customer Analytics

DATA-DRIVEN DECISION MAKING

Data-Driven Sales Strategies
Predictive Analytics & Forecasting
CRM Systems (Salesforce, HubSpot)
Data Visualization (Power BI, Tableau)

PROJECT MANAGEMENT

Project Planning & Coordination
Stakeholder Handling
Risk Management

PROCESS OPTIMIZATION

Sales Performance Metrics & Reporting
A/B Testing & Campaign Analysis
Process & Cost Optimization

CLOUD & TECHNOLOGY

Sales Automation
Data Integration & Pipeline
Amazon Web Services (AWS)
Google Cloud Platform (GCP)

ADDITIONAL TECHNICAL SKILLS

Communication & Presentation
Data Handling (Pandas, Numpy)
CI/CD Tools (Docker, Kubernetes)
Machine Learning (TensorFlow, PyTorch)

Certification

- Google IT Support Professional
- Google IT Automation With Python
- Google Cloud: Cloud Architect
- Mathematics for Machine Learning
- DataOps with Apache Iceberg using Spark, Nessie, and Dremio

Educational Qualification

University of Dhaka; **B.Sc in Soil, Water & Environment** Jan 2020- Feb 2025

CGPA: 3.62/4.00;
Research Project: Health Risk Assessment from Heavy Metals in Dried Fish of Dhaka.

Higher Secondary Certificate (HSC) Graduated in 2019

Letter Grade: A (Science), Government Bangla College

Secondary School Certificate (SSC) Graduated in 2017

Letter Grade: A+ (Science), Lalmatia Housing Society School & College

Professional Experience

Stanford University; **Code In Place 2025**
Section Leader March 2025 - May 2025

- Led the class of 9 international students to teach CS106A/B program of Stanford University Syllabus. Provided detailed feedback and grading on assignments and exams.
- Collaborating with Dr. Chris Piech & Dr. Mehran Sahami to enhance course materials.

Atomic Energy Center; **Bangladesh Atomic Energy Commission**
Research Assistant Mar 2024 - Nov 2024

- Developed and deployed deep learning models using TensorFlow and Scikit-Learn for water quality forecasting, enhancing environmental monitoring of the Turag, Buriganga, Shitalakshya, Dhaleshwari, and Balu rivers.
- Analyzed water pollution dynamics and documented findings in 7+ study, contributing to 10+ journal articles.

University of Dhaka; **Department of Soil, Water And Environment**
Research Assistant Mar 2023 - Nov 2024

- Led 15+ analytical chemistry and deep learning projects to assess the impact of soil, sediment, and water quality on human health, analyzing over 500 samples across the Gangetic Delta.
- Used 5+ mathematical and statistical approaches to improve soil organic carbon (SOC) model accuracy by 15%. Contributed to 7+ peer-reviewed journal articles.

Project

Customer Behavior Analysis for E-Commerce Using Machine Learning

- Segmented customers into frequent buyers, occasional shoppers, and new/browsing customers using K-means and Agglomerative clustering for an Upwork client.
- Implemented marketing strategies, boosting engagement and conversion rates, resulting in a 21% profit increase.
- Applied algorithms and programming in 5 e-commerce apps. Tools used: Python, Pandas, Scikit-learn, Matplotlib, Seaborn.

Data-Driven E-Commerce Business Analysis for Strategic Growth

- Analyzed e-commerce sales, profit, and customer behavior to optimize business strategies for 3 Fiverr client.
- Identified that the consumer segment contributed 54% of profit, and the corporate region accounted for 28% of sales.
- Visualized insights in Tableau live dashboards integrating with PostgreSQL and pipeline applied in 4 e-commerce sites.

Extracurricular Activities

Secretary Technica
Geo-Biome Club
Silico Lab
University of Dhaka

Participant
Stanford University
Code In Place 2024

Runnersup in Dhaka Division
BCB Young Tigers Cricket (2017)

Interpersonal Skills

Languages
English (Fluent), Bengali (Native), Hindi

Communication Skills
Expert in communication with senior leadership and decision-making teams.

Research & Development
- Business Intelligence
- Consumer Base Prediction
- Soil, Sediment, Water Quality
- Remote Sensing & GIS

Programming Languages

Python	4Y
R	3Y
SQL	3Y

Dashboarding

Tableau	2Y
PowerBI	2Y
Google DataStudio	3Y

Data Handling

Pandas	4Y
Numpy	4Y
Scipy	3Y

Machine Learning

Scikit-Learn	4Y
TensorFlow	4Y
Pytorch	2Y

App Development

Django	1.5Y
Flask	1.5Y

Project

Bank Customer Segmentation for Targeted Loan Marketing Using Power BI
- Analyzed bank customer data to identify loan-targeted segments based on gender, education, marital status, and age for a local bank (freelance project).
- 35% high-potential loan applicants were university graduates, and 40% loans were requested by middle-aged individuals.
- Boosted loan conversion rates by 18% through targeted customer segmentation.

Water Quality Modeling Using Enhanced CNN, RNN, LSTM, GRU of Turag
- Analyzed Turag River water and developed a novel method for modeling dissolved oxygen (DO) and biological oxygen demand (BOD) using stacked CNN, RNN, LSTM, and GRU under atomic energy center project.
- Deep learning models outperformed machine learning models, improving accuracy by 3.88%, reducing errors by 7.41%, and increasing reliability by 95.56%.

Ground Water Arsenic Pollution Modeling Using Ensemble Techniques
- Analyzed groundwater from 909 wells to assess Arsenic pollution and developed a novel ensemble techniqueusing multi-scalar data fusion (soil, climatic, anthropogenic, satellite imagery) for prediction.
- The approach is expected to improve prediction accuracy by 5-10% compared to traditional deep learning models.
- Collaborated with Dr. Anwar Zahid from the Institute of Water Modeling, BWDB on the project.

All Other projects can be found on Github

Publications

Journal of Next Research, Elsevier (Under review)
Hasan, M. R., Rahman, A., Zubyer, S., & Jolly, D. Y. N. Comparative analysis of water quality forecasting of enhanced CNN, RNN, LSTM, GRU-based multivariate and univariate deep learning architectures for the urban Turag River.

Journal of Biological Science, University of Dhaka (Under review)
Uddin, M. J., Hasan, M. R., Arabi, F. Z., & Ali, A. Z. Spatial soil variability and carbon dynamics in the Moribund Delta of the Ganges of Bangladesh.

Journal of Environmental Science Ecosystem, Elsevier
Hasan, M. R., Arabi, F. Z., Uddin, M. J., & Mohiuddin, A. S. M. The potential soil organic carbon stocks in Sundarbans tidal mangrove forest ecosystem of Bangladesh.

Journal of Environmental Geochemistry and Health, Elsevier
Rahman, A., Hasan, M. R., Zubyer, S., Jolly, Y. N., & Akter, S. Heavy metals and health risk assessment of Buriganga, Shityalakshya, Balu, Turag, Dhaleshwari river sediments and water around Dhaka.

References

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