

MD RAKIB HASAN

An aspirational graduate, equipped with extensive data analysis knowledge to drive business growth. Gregarious and eager to connect with new people, enjoys continuously acquiring knowledge and applying it to solve business challenges. Diligent and driven by performance-based growth, seeking opportunities to apply skills in data analysis, customer segmentation, cloud platforms, and advanced problem-solving to contribute to business growth and operational efficiency.



Contact Information

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Areas of Expertise

BUSINESS INTELLIGENCE

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

DATA-DRIVEN DECISION MAKING

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

PROJECT MANAGEMENT

Project Planning & Coordination
Stakeholder Handling
Risk Management

CLOUD & TECHNOLOGY

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

PROCESS OPTIMIZATION

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

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

- BSc in Soil, Water And Environment, University of Dhaka** 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

- 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.
- Department of Soil, Water And Environment, University of Dhaka**
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 on analytical and AI-driven solutions for environmental sustainability.

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.
 - Revealed 15% seasonal variation in sales through time series analysis.
 - Visualized insights in Tableau live dashboards integrating with PostgreSQL and pipeline applied in 4 e-commerce sites.

Extracurricular Activities	Project																														
<p>Section Leader (SL) Stanford University Code In Place Programme (CIP 2025)</p> <p>Vice President (Technical) EDAPHOS Research Society</p> <p>Technical Secretary AstroBiology Society of Bangladesh</p> <p>Runnersup in Dhaka Division BCB Young Tigers Cricket (2017)</p>	<p>Bank Customer Segmentation for Targeted Loan Marketing Using Power BI 🔗</p> <ul style="list-style-type: none"> 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. <p>Water Quality Modeling Using Enhanced CNN, RNN, LSTM, GRU of Turag 🔗</p> <ul style="list-style-type: none"> 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%. <p>Ground Water Arsenic Pollution Modeling Using Ensemble Techniques</p> <ul style="list-style-type: none"> Analyzed groundwater from 909 wells to assess Arsenic pollution and developed a novel ensemble technique using 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. <p>All Other projects can be found on Github 🔗</p>																														
Interpersonal Skills	Publications																														
<p>Languages English (Fluent), Bengali (Native), Hindi</p> <p>Communication Skills Expert in communication with senior leadership and decision-making teams.</p> <p>Research & Development ➤ Business Intelligence ➤ Consumer Base Prediction ➤ Soil, Sediment, Water Quality ➤ Remote Sensing & GIS</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>																														
<p>Programming Languages</p> <table> <tr><td>Python</td><td>4Y</td></tr> <tr><td>R</td><td>3Y</td></tr> <tr><td>SQL</td><td>3Y</td></tr> </table> <p>Dashboarding</p> <table> <tr><td>Tableau</td><td>2Y</td></tr> <tr><td>PowerBI</td><td>2Y</td></tr> <tr><td>Google DataStudio</td><td>3Y</td></tr> </table> <p>Data Handling</p> <table> <tr><td>Pandas</td><td>4Y</td></tr> <tr><td>Numpy</td><td>4Y</td></tr> <tr><td>Scipy</td><td>3Y</td></tr> </table> <p>Machine Learning</p> <table> <tr><td>Scikit-Learn</td><td>4Y</td></tr> <tr><td>TensorFlow</td><td>4Y</td></tr> <tr><td>Pytorch</td><td>2Y</td></tr> </table> <p>App Development</p> <table> <tr><td>Django</td><td>1.5Y</td></tr> <tr><td>Flask</td><td>1.5Y</td></tr> </table>	Python	4Y	R	3Y	SQL	3Y	Tableau	2Y	PowerBI	2Y	Google DataStudio	3Y	Pandas	4Y	Numpy	4Y	Scipy	3Y	Scikit-Learn	4Y	TensorFlow	4Y	Pytorch	2Y	Django	1.5Y	Flask	1.5Y	<p>References</p> <table> <tr> <td> <p>Dr. ASM Mohiuddin Chairman Department of Soil, Water And Environment University of Dhaka Email: asm.mohiuddin@du.ac.bd</p> </td> <td> <p>Dr. Yeasmin Nahar Jolly Chief Scientific Officer Atomic Energy Center BAEC, Dhaka Email: jolly_tipu@yahoo.com</p> </td> </tr> </table>	<p>Dr. ASM Mohiuddin Chairman Department of Soil, Water And Environment University of Dhaka Email: asm.mohiuddin@du.ac.bd</p>	<p>Dr. Yeasmin Nahar Jolly Chief Scientific Officer Atomic Energy Center BAEC, Dhaka Email: jolly_tipu@yahoo.com</p>
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