

Md. Esrat Hossan *Fresh Graduate*

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 <https://github.com/MdEsrat>



PROFESSIONAL SUMMARY

Dedicated to advancing Bangladesh's technology and data-driven economy by creating innovative software solutions and enhancing the practical applications of AI and data analytics. Committed to facilitating digital transformation across local industries through efficient, ethical, and impactful computing practices. Focused on conducting meaningful research and publishing high-quality work in artificial intelligence, data science, and machine learning to elevate Bangladesh's role in global technological innovation. Possesses expertise in developing interpretable, privacy-aware machine learning and computer vision solutions for real-world and healthcare applications, while ensuring transparency and fairness through responsible AI practices.

EDUCATION

B.Sc. in Computer Science & Engineering, 2022 – 2025 | Dhaka
Daffodil International University
GPA: 3.64(ongoing)/4.00

HSC (Science), *Hazera Toju Degree College* 2020 | Chattogram
GPA: 5.00/5.00

SSC (Science), *Banskhali Adarsha High School* 2018 | Chattogram
GPA: 5.00/5.00

SKILLS

Programming

Python, C/C++

Frontend

HTML, CSS, JS, Bootstrap, Tailwind

Language

Bengali (Native), English (Fluent)

Tools

Microsoft Office (Excel, Word, PowerPoint),
GitHub, Colab, VSCode,

Database

MySQL

PROJECTS

Student Hub

Developed a student management web application using HTML, CSS, Bootstrap, and PHP that enables students to view results, upload files, and submit feedback anonymously.

Teachers can securely review feedback. Integrated Google Auth API and Google Drive API for security and efficiency.

GitHub: github.com/MdEsrat/student-academic-hub

COMPETITIVE PROGRAMMING & CONTESTS

1. **Take-Off Programming Contest, Finalist**

2022 | Daffodil International University

CO-CURRICULAR ACTIVITIES

Class Representative, 4 years
Communication between students and faculty, feedback collection, leadership.

Joint Press Secretary, Daffodil AI Club
Managed announcements, documentation, event promotion.

CERTIFICATION

Professional Online Web Design & WordPress Theme Customization
— UYLAB (2024)

Oracle Database Course
— ICT Division, Daffodil International University (2025)

RESEARCH EXPERIENCE

Heart Attack Risk Detection (Explainable Stacking Ensemble)
Feature selection (RF, Chi-Square, ANOVA, PCA, LASSO) + stacking (XGB + RF).
5-fold CV accuracy: 96.57%. SHAP/LIME for interpretability.
Submitted to CMT.

Interpretable Thyroid Diagnosis
Feature selection (Chi-Square, ANOVA, PCA, LASSO) + stacking (XGB + RF LR).
5-fold CV accuracy: 99.5%. SHAP/LIME applied.
Under journal review.

Brain MRI Tumor Classification (RXV Ensemble)
Combined ResNet50V2, VGG16, Xception RF.
99.56% accuracy on 6,00 MRIs; Grad-CAM verified.
Submitted to IDAA 2025.

Remittance Impact on Bangladeshi Economy
Used RF/DT/NB/KNN/SVR/GNB to analyze GDP impact.
Preprint: 10.1310/RG.2.2.18002.06081

References

Md. Assaduzzaman, Assistant Professor, Department of CSE, Daffodil International University
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