



Research Interests

Machine Learning, Deep Learning, Decentralized Machine Learning
AI in Health, Neuroscience, Medical Image Analysis, Pattern Recognition, Computer Vision
Natural Language Processing

English Language Proficiency

2023 IELTS: 6.5, (L: 7.5, R: 6.0, W: 6.5, S: 5.5)

Education

- Dec 2019–Jan 2023 **MSc. Engineering in Computer Science & Engineering**, Dhaka University of Engineering & Technology, Gazipur, Dhaka, CGPA: 3.75 (Honors) / 4.00.
2023 Courses: Advanced Image Processing, Advanced Algorithm Design and Analysis, Medical Image Processing, Machine Learning, Cloud Computing, and Neural Network.
Thesis: Skin cancer detection utilizing Intensity Value Estimation Model with a Deep Neural Network, **Advisor** : Dr. Rafiqul Islam
- 2013–Oct 2018 **BSc. Engineering in Computer Science & Engineering**, Rajshahi University of Engineering & Technology (RUET), Rajshahi, CGPA: 3.23 / 4.00.
Thesis: Cold-Start Recommendation System Using K-Nearest Neighbor and Decision Tree in Movie Rating Prediction, **Advisor** : Biprodip Pal

Employment History

- Feb 2022 – present **Assistant Officer**, Software development team, Mercantile bank, Dhaka, Responsible for designing and developing android applications and machine learning projects. Besides these, I am also responsible for designing client-side and server-side applications, managing well-functioning databases and applications, writing effective APIs, and writing technical documentation.
- 2019 – 2020 & 2021 – 2022 **Android Consultant**, Software team, MedEasy, Banasree, Dhaka, Responsible for analyzing user's data to predict the possible treatments using machine learning techniques by ensuring reusable, and reliable java code and also requirement analysis & feature improvement to ensure the best possible application performance.
- Aug 2018 – Sep 2019 **Software Engineer, IT**, Android team, Avis technologies ltd, Panthapath, Dhaka, Responsible for designing and developing advanced android applications. Bug fixing and improving application performance, publishing apps on google play store ensuring app responsiveness, and developing and integrating APIs.

Publications

Journal Articles

- 2024 N. I. Md. Ashafuddula and Rafiqul Islam. Ive-mdnet: Intensity value estimation model combined with a transfer learning approach for melanoma skin cancer diagnosis. *SN Computer Science*, volume 5, page 435, 2024.
- 2023 N. I. Md. Ashafuddula, Bayezid Islam, and Rafiqul Islam. An intelligent diagnostic system to analyze early-stage chronic kidney disease for clinical application. *Applied Computational Intelligence and Soft Computing*, volume 2023, page 17. Hindawi, Nov. 2023.
- 2023 N. I. Md. Ashafuddula and Rafiqul Islam. Melanoma skin cancer and nevus mole classification using intensity value estimation with convolutional neural network. *Computer Science*, volume 24, Oct. 2023.

In Conference Proceedings

- 2018 Bayezid Islam, N. I. Md. Ashafuddula, and Firoz Mahmud. A machine learning approach to detect self-care problems of children with physical and motor disability. In *2018 21st International Conference of Computer and Information Technology (ICCIT)*, pages 1–4, 2018.

Research Experiences

- Jan 2024 – Continuing **N. I. Md. Ashafuddula, Faruk Ahmed, Rafiqul Islam, and Bayezid Islam**, CaX-Net: A Stacking Ensemble Approach with Optimized Hyperparameters for Multi-Cancer Diagnosis, In *Preparation*.
- June 2021 – **N. I. Md. Ashafuddula and Rafiqul Islam**, ContourTL-Net: Contour-based Transfer Learning Algorithm for Early-stage Brain Tumor Detection, *Accepted* with revision, International Journal of Biomedical Imaging.
- Dec 2022

Peer Reviewer

- 2023-present Computers in Biology and Medicine (1)
- 2023-present SN Computer Science (1)
- 2023-present Pattern Analysis and Applications (2)

Projects

- 2023 ML focused Fraudulent Transactions Analysis, On-going, Mercantile Bank
- 2024 Inward Remittance Declaration Form-C (Android app), On-going, Mercantile Bank
- 2023 Mbl Islami App (Android app), Mercantile Bank
- 2022 CorporatePay (MBL Corporate Internet Banking), Mercantile Bank
- 2019–2022 MedEasy (Android app), online pharmacy service
- 2018-2019 Office inventory management (Android app), Avis Technologies Ltd.
- 2018 Light of Hope (Android app), Avis Technologies Ltd.

Computer skills

- Languages Python, Java
- Frameworks Scikit Learn, Keras, TensorFlow, Java (Core Java, Spring Boot), Bootstrap
- Web Techs HTML 5, CSS, JSP, Javascript
- Database MySQL, MSsql, Firebase Realtime DB
- Tools Google Colab, Anaconda, Android studio, IntelliJ

Recognitions & Awards

- 2016 1st Runner-Up, project: Nirapod Sorok (Android app) in *IEEE Robodroid Championship* (Mobile App contest 2016), Rajshahi University of Engineering & Technology
- 2016 Cricket tournament champion, *Inter department cricket tournament, RUET*.
- 2017 Cricket tournament runner-up *Inter department cricket tournament, RUET*.

Training Programs

- 2022 **Basic Banking Training**, MBLTI, Mercantile Bank.
- 2018 **Machine Learning**, *Coursera online course*, by Andrew Ng, authorized by Stanford university.