

## HIGHLIGHTS

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Research Interest                      Medical imaging, machine learning, signal processing, bioinformatics.

## PUBLICATION

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*\*Find all the latest articles on [Google Scholar](#).*

- Research Article
- [1] **Jobayer, Md.**, A. Taylor, M. R. Hasan, K. A. Ahmed, and M. Z. Hossain, "Machine Learning to Predict Gut Microbiomes of Agricultural Pests," *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, (\*In review).
  - [2] Z. Chen, **Jobayer, Md.**, M. R. Hasan, K. A. Ahmed, and M. Z. Hossain, "MutFusVAE: Mutational Fusion Variational Autoencoder for Predicting Primary Sites of Cancer," en, *Procedia Computer Science*, vol. 222, pp. 272–283, 2023. doi: 10.1016/j.procs.2023.08.166.
  - [3] **Jobayer, Md.**, M. A. H. Shaikat, M. Naimur Rashid, and M. R. Hasan, "A systematic review on predicting PV system parameters using machine learning," en, *Heliyon*, vol. 9, no. 6, e16815, Jun. 2023. doi: 10.1016/j.heliyon.2023.e16815.
- Conference Paper
- [4] M. S. Tahsin, **Jobayer, Md.**, M. B. U. Antor, M. Islam, F. F. Raisa, and M. A. H. Shaikat, "Predictive Analysis & Brief Study of Early-Stage Diabetes Using Multiple Classifier Models," in *2022 IEEE 12th Annual Computing and Communication Workshop and Conference (CCWC)*, Las Vegas, NV, USA: IEEE, Jan. 2022, pp. 0203–0207. doi: 10.1109/CCWC54503.2022.9720736.

## EXPERIENCE

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- Dec 2023 – Present                      Research Assistant, **BRAC University**  
*Computing Lab, Dept. of EEE*
- Currently working on –
- Context-aware sleep analysis based on Graph Attention Network
  - Fracture localization through multimodal analysis of X-ray images
  - Heart murmur detection based on TinyML and Swin transformer network
- Jul 2023 – Sep 2023                      Embedded System Engineer Intern, **FactoryNext**
- Jul 2022 – Feb 2023                      Senior Researcher, **LASSET, BRAC University**
- Dec 2019 – Jan 2022                      Android Developer, **Global Dream Pvt. Ltd., India**

## RELEVANT PROJECTS

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Project #01	<b>UNet-based Breast Cancer Detection</b> <ul style="list-style-type: none"><li>• Used the 'Breast Ultrasound Image Dataset' which has around 780 images</li><li>• Achieved an accuracy of 88% using the state-of-the-art UNet model</li></ul>
Project #02	<b>Chest X-ray Abnormalities Detection</b> <ul style="list-style-type: none"><li>• VinDr-CXR chest X-ray dataset was used as the data source</li><li>• Fine-tuned ResNet ML model for abnormalities detection</li></ul>
Project #03	<b>MRI-based Alzheimer's Disease Prediction using Pre-trained Model</b> <ul style="list-style-type: none"><li>• Public dataset available on Kaggle was used</li><li>• CNN model was built on top of ResNet to capture the spatial information</li></ul>

## EDUCATION

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Bachelor of Science	Electrical & Electronic Engineering, <b>BRAC University</b> <ul style="list-style-type: none"><li>• Major in Electronics</li><li>• GPA of 3.3/4</li></ul>
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## PEER REVIEW

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Review #01	IET Renewable Power Generation	3
Review #02	IEEE EICT Conference	4