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# Md Junayed Hossain

## Profile

**I enjoy turning complex data into insightful stories that enhance the area of machine learning since I'm curious and on a quest for knowledge.**

## Experiences

September : 2023 - Ongoing
**Adjunct Lecturer**, *Independent University Bangladesh*.
Courses
- **Introduction to Computer Programming.**
- **Algorithms.**

July : 2023 - 17 September 2023
**Research Engineer**, *Independent University Bangladesh*.
**Research Topic : Application of Biomedical Signal Processing, Analysis, and Classification to Identify the Biomarkers of Stroke for Early Prediction and Post-Stroke Recovery.**

April : 2023 - June : 2023
**Data Analyst, Trainee**, *ADN Diginet*.
Power BI, Data Scrapping, Data Cleaning, Data Visualization, Implement ML Algorithms.
- **Creating Sales Dashboard using PowerBi.**
- **Integrating ML for Sales Prediction.**

## Education

2018–2022
**BSc in Computer Science and Engineering** , *Independent University Bangladesh*, (Dhaka), 3.67.

2014–2016
**HSC**, *Notre Dame College*, (Dhaka).
GPA : 5.00

2012–2014
**SSC**, *Dhaka Residential Model College*, (Dhaka).
GPA : 5.00

## Publications

### In Conference Proceedings

2024
Sumaia Anjum Shaba, Sharmin Islam Shroddha, **Md Junayed Hossain**, and Md Fahad Monir. **NeuralGesture Communication: Translating one Sign Language to Another Sign Language Using Deep Learning Model and gTTs**. In *2024 IEEE 99th Vehicular Technology Conference (VTC2024-Spring)*, pages 1–5. IEEE, 2024.

2024
Md Fahad Monir, **Md Junayed Hossain**, Mohammad Barkatullah, Md Mozammal Hoque, Zoheb Hassan, and Tarem Ahmed. **Enhanced Vehicle Detection by Optimized Image Compression in NextG Wireless Network Autonomous Vehicles System**. In *2024 IEEE 100th Vehicular Technology Conference (VTC2024-Fall)*, pages 1–5, 2024.

2024
Khorshed Alam, Mahbubul Haq Bhuiyan, **Md Junayed Hossain**, Md Fahad Monir, and Md Asif Bin Khaled. **Advancements in Bangla Speech Emotion Recognition: A Deep Learning Approach with Cross-Lingual Validation**. In *2024 IEEE 99th Vehicular Technology Conference (VTC2024-Spring)*, pages 1–5. IEEE, 2024.

2023 **Md. Junayed Hossain**, Mohammad Barkatullah, Md Fahad Monir, and Tarem Ahmed. **Repercussion of Image Compression on Satellite Image Classification using Deep Learning Models**. In *2023 IEEE 98th Vehicular Technology Conference (VTC2023-Fall)*, pages 1–5, 2023.

2023 **Md Junayed Hossain**, Sheikh Md Abdullah, Mohammad Barkatullah, and Md Fahad Monir. **Exploring the Efficacy of BERT in Bengali NLP: A Study on Sentiment Analysis and Aspect Detection**. In *IEEE EUROCON 2023-20th International Conference on Smart Technologies*, pages 54–59. IEEE, 2023.

2022 **Md. Junayed Hossain**, Jannatul Ferdaus, Saifur Rahman, and Sarmin Akter Santa. **Multiclass Classification of GvHD and Relapse: A Comparative Analysis Among Machine Learning and ANN-based Algorithms**. In *2022 25th International Conference on Computer and Information Technology (ICCIT)*, pages 489–494, 2022.

2022 **Md Junayed Hossain**, Sheikh Md Abdullah, Mohammad Barkatullah, M Saef Ullah Miah, Talha Bin Sarwar, and Md Fahad Monir. **Predicting the Success of Suicide Terrorist Attacks using different Machine Learning Algorithms**. In *2022 25th International Conference on Computer and Information Technology (ICCIT)*, pages 378–383. IEEE, 2022.

## Book Chapter

2022 Md Asif Bin Khaled, **Md Junayed Hossain**, Saifur Rahman, and Jannatul Ferdaus. **Multiclass classification for gvhd prognosis prior to allogeneic stem cell transplantation**. In *Australasian Joint Conference on Artificial Intelligence*, pages 487–500. Springer, 2022.

## In Poster Presentation

2024 Md Junayed Hossain and Ashraful Islam. **Leukemia Classification: A Comprehensive Evaluation of Deep Learning Models with Pixel Reduction**. In *46th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Orlando, Florida, USA*. IEEE, 2024.

## Accepted

2024 Md Junayed Hossain, Shoptorshi Rahman, Md Fahad Monir, and Tarem Ahmed. **Comparative Performance of Object Detection Algorithms Under Low Illumination Conditions**. In *SoutheastCon is the annual IEEE Region 3 Technical, Professional, and Student Conference. (IEEE SoutheastCon 2025)*, Charlotte/Concord, NC, 2024.

2024 Md Junayed Hossain, Md Fahad Monir, and Tarem Ahmed. **Hybrid Approaches of ROI Extraction and Pixel Reduction for Classifying Kidney Abnormalities**. In *SoutheastCon is the annual IEEE Region 3 Technical, Professional, and Student Conference. (IEEE SoutheastCon 2025)*, Charlotte/Concord, NC, 2024.

## In review

2025 Moinul Alam, Mostafa Hasan, Arvil Nath, Md Junayed Hossain, and Sanzar A Alam. **A Theoretical Framework for Decentralized Intrusion Detection in Smart Networks using Blockchain and Machine Learning**. In *International Conference on Advanced Information Networking and Applications 2025*, Barcelona, Spain, 2025.

## Ongoing Research

2024 Md Junayed Hossain and Md Fahad Monir. **Explainable AI Meets Synthetic Data: A Deep Learning Framework for Detecting Netwrok Intrusion.** Journal of Network and Computer Applications, 2024.

2024 Md Junayed Hossain, Asif Bin Khaled, and Md Fahad Monir. **Reducing Computational Costs and Latency in Medical Image Analysis on O-RAN Networks Through Downsampling and Superresolution**. IEEE Access, 2024.

2024 Md Junayed Hossain, , Jannatul Ferdaus, and Md Ashraful Islam. **A CNN-Based Framework for Cattle Weight Estimation: Overcoming Challenges in Agricultural Management**. Journal of King Saud University Computer and Information Sciences, 2024.

## Fellowships & Awards

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|---|---|
| 2023 | **_Best Undergraduate Researcher-2023,_** Independent University, Bangladesh |
| 2022-2023 | **_Vice Chancellor Award,_** Independent University, Bangladesh |
| 2021-2022 | **_Dean Merit Award,_** Independent University, Bangladesh |

## Projects

### University Projects

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|---|---|
| Fall, 2021 | **Government Project Monitoring System**, Using Core java, Java FXML and Database concept. |
| Spring, 2021 | **Student Performance Monitoring System**, Using HTML, CSS, JavaScriptt, NodeJs, ExpressJs, MongoDB.. |
| Fall, 2020 | **University Course Helping Software (Web Application + Android Application)**, Using BOOTSTRAP, PHP, based on database concept and Android Studio.. |
| Fall, 2020 | **Java Project [Airbnb]**, Using Core java, Java FXML and File Handling System.. |

## Computer skills

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| Programming Languages | Python, PyTorch, keras, C, C++, Advanced JAVA |
| Web Technologies | HTML 5, PHP, Javascript |
| Database | SQL, MySQL, MongoDB |

## Teaching Assistantship

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|---|---|
| Fall, 2022 | **CSE 317: Numerical Methods**, IUB. |
| Spring, 2021 | **CSE 203: Data Structure**, IUB. |

## References

**Mr Tarem Ahmed, PhD, SMIEEE**
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