Department of CSE
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■ResearchGate Profile

■Personal Site



# 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: Adjunct Lecturer, Independent University Bangladesh.

2023 - Courses

Ongoing • Introduction to Computer Programming.

Algorithms.

July: 2023 - Research Engineer, Independent University Bangladesh.

17 September Research Topic: Application of Biomedical Signal Processing, Analysis, and Classification to

2023 Identify the Biomarkers of Stroke for Early Prediction and Post-Stroke Recovery.

April: 2023 - Data Analyst, Trainee, ADN Diginet.

June: 2023 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), Magna Cum Laude.

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 Network 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

- 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**

- 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

Programming Python, PyTorch, keras, C, C++, Advanced JAVA

Languages

Web HTML 5, PHP, Javascript

**Technologies** 

Database SQL, MySQL, MongoDB

# Teaching Assistantship

Fall, 2022 CSE 317: Numerical Methods, IUB.

Spring, 2021 CSE 203: Data Structure, IUB.

## References

#### Mr Tarem Ahmed, PhD, SMIEEE

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#### Mr Md Fahad Monir

Senior Lecturer, Computer Science & Engineering Independent University Bangladesh

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#### Mr. MD Asif Bin Khaled

Senior Lecturer, Computer Science & Engineering Independent University Bangladesh

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