

# Md. Mahfuzur Rahman

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[mahfuzur-mahim-rahman](#) | [Mahim-Sama](#)

## CAREER OBJECTIVE

I want to learn a lot about reasoning, cyber-security, and artificial intelligence so that I can become a great programmer and computer scientist. My goal is to make a real difference in the field of AI tech while also always getting better as a person and a worker.

## RESEARCH INTERESTS

Natural Language Processing and Large Language Models, Computer Vision (remote sensing), Generative AI, Retrieval-Augmented Generation, Gene-Disease Association, Graph Neural Networks, Knowledge Graph, Cyber Security.

## EDUCATION

**Ahsanullah University of Science and Technology**, B.Sc. in Computer Science and Engineering December 2023  
• CGPA: 2.849/4.0  
**BCIC college**, Higher Secondary Certificate July 2018  
• GPA: 4.25/5.0  
**Monipur High School**, Secondary School Certificate May 2016  
• CGPA: 5.0/5.0

## EXPERIENCE

**Junior Software Engineer (ML team)**, [Silicon Orchard LTD.](#) March 2024 – Present  
• Contributed to a corporate project by implementing a **RAG** system and overseeing API deployment utilising **FastAPI**. Implemented the system on the company's proprietary server.  
• Currently engaged in a research project utilising the **YOLO** object detection model.  
• Engaged in an ongoing initiative that focuses on improving current operations. In this work, I used the **fuzzy c-means** clustering method, evaluated the clustering, and used the existing **autoencoder** model for text processing.

## PUBLICATIONS

Md. Mahfuzur Rahman, Sunzida Siddique, Marufa Kamal, Rakib Hossain Rifat, and Kishor Datta Gupta. "UAV (Unmanned Aerial Vehicles): Diverse Applications of UAV Datasets in Segmentation, Classification, Detection, and Tracking." Submitted to *MDPI Algorithms Journal*.  
Preprint available at: [10.20944/preprints202411.0829.v1](https://arxiv.org/abs/10.20944/preprints202411.0829.v1).

Fatema Tuj Johora Faria, Mukaffi Bin Moin, Md. Mahfuzur Rahman, Md. Morshed Alam Shanto, Asif Iftekher Fahim, and Md. Moinul Hoque. "Uddesho: An Extensive Benchmark Dataset for Multimodal Author Intent Classification in Low-Resource Bangla Language." Presented at *ICITA 2024*.  
Preprint available at: [10.48550/arXiv.2409.09504](https://arxiv.org/abs/10.48550/arXiv.2409.09504).

## SUBMITTED MANUSCRIPTS

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Fatema Tuj Johora Faria, Mukaffi Bin Moin, Busra Kamal Rafa, Swarnajit Saha, Md. Mahfuzur Rahman, Khan Md. Hasib, and M. F. Mridha. "**BanglaCalamityMMD: A Comprehensive Benchmark Dataset for Multimodal Disaster Identification in the Low-Resource Bangla Language.**" under review in the *International Journal of Disaster Risk Reduction*.

## ONGOING RESEARCH

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Knowledge Graph Embedding and Graph Convolutional Network based approach to Gene-Disease Association Prediction (On going)

## TECHNOLOGIES

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**Languages:** Python, C++, C, Java

**Scripting:**  $\LaTeX$

**Framework:** Python-Kivy

**IDE:** PyCharm, Jupyter Notebook, CodeBlocks, Visual Studio

**Editors:** Visual Studio Code, Notepad++

**Database:** MS-SQL

**Deep Learning Framework:** Pytorch, TensorFlow, keras

**AI/ML Integration Techniques:** Langchain, Prompt Engineering, LLM fine-tuning

## EXTRA-CURRICULAR ACTIVITIES

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- **Organizer**, AUST CSE Carnival 1.0, Ahsanullah University of Science and Technology (Jan 2023)
  - Organized and volunteered in the intra-university programming contest.
  - Organized and monitored the Robo-Soccer tournament.
  - Volunteered in the Software Exhibition.
- **Organizer**, AUST CSE ODYSSEY Spring 2022
  - Monitored code of conduct inside the venue.
  - Management of the whole ceremony.
- **Participant**, CodeFiesta Sponsored by CEFALO (2022)
  - Took part in this inter-university programming contest to assess myself.
- **Organizer**, Naimul Memorial Cricket League Spring-2022
  - Actively helped plan the sports event and monitored the overall rules and guidelines for sports (Cricket) behaviour.
- **Prize and Certificate Winner**, from "Bishwo Shahitto Kendro" (2017)
  - For participating in their "Class XI (Dhaka Metropolitan) book reading" program.

## REFERENCES

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**Dr. S.M.A. Al-Mamun**

Professor

Ahsanullah University of Science and Technology

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