# Md. Mahfuzur Rahman

Dhaka, Bangladesh | mahim1066@gmail.com | +8801914603813 | mdmahfuzurrahman.github.io 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, System on a Chip (SoC), Cyber Security, Quantum Computing.

#### **EDUCATION**

**Ahsanullah University of Sceience 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.

Fatema Tuj Johora Faria, Mukaffi Bin Moin, Md. Mahfuzur Rahman, Md. Morshed Alam Shanto, Asif Iftekher Fahim, and Md. Moinul Hoque. "Uddessho: 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.

#### SUBMITTED MANUSCRIPTS

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

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

# **TECHNOLOGIES**

**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**

- 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

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

Professor

Ahsanullah University of Science and Technology

Email: almamun@aust.edu Phone: +880-1912-073524