

Md Ashraful Alam

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 Md Ashraful Alam  Moghbazar-1217, Dhaka, Bangladesh

Research Interest

My research interests lie at the intersection of Natural Language Processing (NLP), Multimodal Learning, and Machine Learning and Deep Learning. I am particularly focused on Multimodal NLP, Transformer architectures, and Large Language Models (LLMs) to address complex real-world problems that require the integration of language, vision, and contextual reasoning.

Education

Chittagong University of Engineering & Technology *Aug 2024 – Present*
M.Sc. in Computer Science and Engineering

Chittagong University of Engineering & Technology *Feb 2019 – July 2024*
B.Sc. in Computer Science and Engineering

- **CGPA:** 3.86/4.00 (1st class, Ranked 5th out of 130 students)
- **Advisor:** [Dr. Mohammed Moshiul Hoque](#) 
- **Thesis:** Multimodal Aggressive Meme Classification Using BERT

Projects

Modular E-Commerce Microservices System [Link](#) 

- Built a modular e-commerce system using microservices architecture with independent services for catalog, basket, discount, and ordering. Applied Domain-Driven Design (DDD), Clean Architecture, and CQRS for scalable and maintainable development.
- **Technologies/Tools:** ASP.NET Core, Docker, PostgreSQL, MongoDB, gRPC, RabbitMQ, Redis

Educational Platform for Technical Content [Link](#) 

- Developed a full-stack EduTech platform enabling instructors to create and manage courses, while allowing students to enroll and access technical content. Implemented user authentication, role-based access control, and a structured course management system to facilitate seamless interaction between instructors and learners.
- **Technologies/Tools:** Django, React JS

Sign Language Detection using Deep Learning [Link](#) 

- Developed a real-time sign language recognition application using OpenCV and a CNN-based model trained on a custom dataset. The system accurately detects and classifies six hand signs through live webcam input.
- **Technologies/Tools:** OpenCV, CNN, VGG-16

Handwritten Digit Classification [Link](#) 

- Implemented a digit recognition system using both machine learning and deep learning algorithms to classify handwritten numeric digits. Trained and evaluated models on image datasets to achieve high accuracy in digit prediction.
- **Technologies/Tools:** SVM, MLP

An Android application to predict rotten and fresh fruits [Link](#) 

- Developed a mobile application that predicts whether a fruit is fresh or rotten using a deep learning model integrated with the Android camera interface. Collected and preprocessed a custom dataset, applied sampling techniques to address class imbalance, and deployed the trained model for real-time classification.
- **Technologies/Tools:** CNN, Tensorflow, Keras

Publications

C=Conference, J=Journal, S=In Submission

[C.1] [🔗](#) Cuet_nlp_manning@ lt-edu 2024: Transformer-based approach on caste and migration hate speech detection

Md A Alam, HMA Taher, J Hossain, S Ahsan, MM Hoque

Proceedings of the Fourth Workshop on Language Technology for Equality, Diversity, Inclusion [🔗](#)

March 2024

[C.2] [🔗](#) Multimodal Aggressive Meme Classification using Bidirectional Encoder Representations from Transformers

Md A Alam, J Hossain, S Ahsan, MM Hoque

ICCIT [🔗](#)

December 2024

[C.3] [🔗](#) Enhancing Personalized Learning with Frequent Pattern Mining of Educational Data

R Akter, Md A Alam, S Arefin, MM Hoque

QPAIN [🔗](#)

August 2025

[S.1] [🔗](#) Automatic Stress Detection from Code-Mixed Tamil-English Social Media Posts Using Deep Learning Models

R Akter, Md A Alam, MM Hoque

IEEE WIECON-ECE 2025 [🔗](#)

December 2025

Experience

University of Asia Pacific

Lecturer, Department of CSE

Dhaka, Bangladesh

January 2026 – Present

Softrobotics Bangladesh Ltd.

Software Engineer

Dhaka, Bangladesh

July 2024 – January 2026

- **International Money Transfer (IMT):** Implemented the complete transfer feature, enhanced role-based access control, contributed to the admin page development, and implemented the notification system.
- **HRM, Accounting & Workflow:** Developed the core HRM module, implemented salary generation features, and built a workflow scheduler based on task levels and responsibilities.
- Tools Used: C#, ASP.NET, React JS, Redux, MySQL, Git, Github

Red Dot Digital Ltd.

Software Engineer Intern

Dhaka, Bangladesh

Oct 2023 - Oct 2023

- Completed comprehensive training in Agile methodology, Python, Java, IoT, DevOps, and Git.
- Assigned to the MFS team and developed a CRUD application about User Management using Spring Boot.

CUET NLP Lab

Member & Mentor

Chittagong, Bangladesh

Jan 2023 - Present

Taught about:

- Machine and Deep Learning Algorithms
- Encoder-Decoder Architectures
- Transformer Architecture
- Participating in Shared Tasks
- Fine-tuning Large Language Models (LLMs)
- Multimodal Learning

Skills

- **Programming Languages:** Python, C#, C++, C, JavaScript, HTML, CSS
- **Frameworks:** ASP.NET Core, React JS, Redux
- **Database Systems:** SQL, MySQL, MongoDB
- **Data Science & Machine Learning:** NumPy, Pandas, Matplotlib, Scikit-Learn, Tensorflow, Pytorch

- **Version Control:** Git, Github

Competitive Programming

- **Codeforces:** [ashraf_pavel](#)  Solve count: 1000+, Max Rating: 1400 (Specialist)
- **Codechef:** [ashraf_pavel](#)  Solve count: 100+, Max Rating: 1603(3* Coder)
- Solved more than 1500+ problems on various online judges (Codeforces, Codechef, UVA, Atcoder, LightOj)

Achievement

- **18th place**, Mujib Borsho Carnival Programming Contest, CUET 2022
- **22th place**, Tech Carnival 1.0 Programming Contest, CUET 2021
- **3rd place** , Caste and Migration Hate Speech Detection: LT-EDI@EAACL 2024
- **9th place** , Stress Identification in Dravidian Languages 2024
- **7th place** , Sentiment Analysis of Code-Mixed Text, International Workshop on CLBLP 2023
- **19th place**, USTC Divisional Programming Contest, Chittagong 2019

Training And Workshops

- **Deep Learning Specialization Certificate**  July 2023
Coursera
- **Hands on Training on NLP & Deep Learning** Feb 2023
International Workshop on Computational Linguistics and Bangla Language Processing
- **Hands-on Experience with GPU** Feb 2023
International Workshop on Computational Linguistics and Bangla Language Processing
- **AI And Machine Learning with Python** July 2022
Sheikh Kamal IT Business Incubator, CUET

Leadership Experience

- General Secretary** *Chittagong, Bangladesh*
CUET Computer Club *Aug 2023 – Sep 2024*
 - Key organizer in **Kinetik Presents CUET Inter University Programming Contest, CodeStorm 1.0**, a national programming contest where more than 100 teams participated.
 - Conduct seminar, workshop, and session on Competitive Programming, Web Development, AI, and ML.
- President** *Chittagong, Bangladesh*
Greater Noakhali Student Forum, CUET *June 2023 – May 2024*
 - Did some volunteer work like helping in university regional programs, sports, admission, etc.

References

1. **Dr. Mohammed Moshikul Hoque**
Professor, Department of Computer Science and Engineering
Chittagong University of Engineering and Technology
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2. **Dr. Mohammad Shamsul Arefin**
Professor, Department of Computer Science and Engineering
Chittagong University of Engineering and Technology
Email: sarefin@cuet.ac.bd
3. **Md. Shafiul Alam Forhad**
Assistant Professor, Department of Computer Science and Engineering
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