

Jawad Hossain

Graduate Research Assistant, Department of CS, University at Albany- State University of New York, USA
jawad.cuet.cse@gmail.com — Google Scholar — LinkedIn — ResearchGate

RESEARCH INTERESTS

Artificial Intelligence(AI), Natural Language Processing (NLP), Machine Learning, Deep Learning, Transformer, Large Language Models (LLMs)

EDUCATION

University at Albany- State University of New York, USA

August 2025 - Present

Ph.D. in Computer Science

Research Focus: Machine Learning Optimization Algorithms, AI, Drug Discovery, Large Language Models (LLMs)

Chittagong University of Engineering and Technology (CUET), Bangladesh

February 2018 - July 2023

B.Sc. in Computer Science and Engineering

Advisor: Dr. Mohammed Moshuiul Hoque

Thesis Title: Multilabel Aggressive Text Classification from Social Media using Transformer-based Approaches

GPA: 3.81 (with Honors) / 4.00

Merit Position: 8th among 126

Awards: Dean's Award (for graduating with Honors)

PUBLICATIONS

Published (All published papers can be found here)

- **J. Hossain**, A. Das, M. M. Hoque and N. Siddique, “*Multilabel Aggressive Text Classification from Social Media using Transformer-based Approaches*,” 2023 26th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, 2023, pp. 1-6.
- **J. Hossain**, H. M. Ali Taher, A. Das, and M. M. Hoque, “*NLP-CUET at BLP-2023 task 1: Fine-grained Categorization of Violence Inciting Text using Transformer-based Approach*,” in Proceedings of the 1st International Workshop on Bangla Language Processing (BLP-2023), Singapore: Association for Computational Linguistics, 2023, pp. 241–246.
- **J. Hossain** and M. M. Hoque, “*A GAN-Driven Transformer-based Approach for Sentiment Analysis of Social Media Posts*,” 2024 27th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, 2024, pp. 1-6.
- A.I. Paran, M.S. Hossain, S.H. Shohan, **J. Hossain**, S. Ahsan, and M.M. Hoque, “*Leveraging Large Language Models to Estimate the Check-Worthiness of Multilingual Tweets*,” 2024 27th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, 2024, pp. 1-6.
- M. A. Alam, **J. Hossain**, S. Ahsan, and M.M. Hoque, “*Multimodal Aggressive Meme Classification using Bidirectional Encoder Representations from Transformers*,” 2024 27th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, 2024, pp. 1-6.
- A. B. S. Raihan, S. Ahsan, **J. Hossain**, and M.M. Hoque, “*Action and Agent Recognition from Situational Images Using Transformer-based Approach*,” 2024 27th International Conference on Computer and Information Technology (ICCIT), Cox’s Bazar, Bangladesh, 2024, pp. 1-6.
- M.S. Hossain, A.I. Paran, S.H. Shohan, **J. Hossain**, and M.M. Hoque, “*SemanticCUETSync at SemEval- 2024 Task 1: Finetuning Sentence Transformer to Find Semantic Textual Relatedness*,” in Proceedings of the 18th International Workshop on Semantic Evaluation(SemEval-2024), Mexico: Association for Computational Linguistics, 2024, pp. 1222-1228.
- A.I. Paran, S.H. Shohan, M.S. Hossain, **J. Hossain**, S. Ahsan and M.M. Hoque, “*SemanticCuetSync at AraFinNLP2024: Classification of Cross-Dialect Intent in the Banking Domain using Transformers*,” in Proceedings of The Second Arabic Natural Language Processing Conference, Bangkok, Thailand: Association for Computational Linguistics, 2024, pp. 422–427.
- A.I. Paran, M.S. Hossain, S.H. Shohan, **J. Hossain**, S. Ahsan and M.M. Hoque, “*SemanticCuetSync at CheckThat! 2024: Finding Subjectivity in News Article using Llama*,” in Conference and Labs of the Evaluation Forum (CLEF-2024), France, 2024.
- T. Ahammad, S. Ahsan, **J. Hossain** and M.M. Hoque, “*M-SAM: Multimodal Sentiment Analysis Exploiting Textual and Visual Features of Social Media Memes*,” in International Conference on Pattern Recognition (pp. 134-150). Cham: Springer Nature Switzerland.
- M. T. Rahman, S. Ahsan, **J. Hossain**, M.M. Hoque and M. Ali, “*Multimodal Emotion Recognition System Leveraging Decision Fusion with Acoustic and Visual Cues*,” In International Conference on Pattern Recognition (pp. 117-133). Cham: Springer Nature Switzerland.

RESEARCH EXPERIENCE

Department of CS, University at Albany- State University of New York

Graduate Research Assistant

August 2025 — Present

- Engaged in research projects focused on optimization algorithms in Machine Learning.

CUET NLP Lab

Mentor

August 2023 — July 2025

- Guiding undergraduate students in their research projects related to Natural Language Processing (NLP).
- Assisting in the creation and curation of datasets for low-resource languages (LRLs), with a particular focus on Bengali.
- Conducting workshops and tutorials on NLP topics and tools for undergraduate students.
- Supporting the lab's publications by reviewing and co-authoring research papers.

DIU NLP & ML Research Lab

Supervisor

January 2024 — January 2025

- Supervising and guiding research projects in Natural Language Processing (NLP) and Machine Learning (ML).
- Collaborating with fellow faculty members on research initiatives focused on Natural Language Processing (NLP) and Machine Learning (ML).
- Conducting tutorials and workshops to introduce students to foundational techniques in Artificial Intelligence (AI), Natural Language Processing (NLP), and Machine Learning (ML).
- Mentoring undergraduate students on their NLP and ML-related thesis, offering guidance on research methodologies and experimental design.

Chittagong University of Engineering and Technology (CUET)

Research Assistant

August 2023 — December 2023

- Worked on the project titled “*Developing a Computational Framework to Recognize Emotion from Bengali Texts using Deep Learning*”.
- Collected, curated, and annotated Bengali text data for recognizing emotion from text data.
- Implemented and fine-tuned various transformer-based models (Bangla-BERT, m-BERT, XLM-R, distil-BERT etc.) for emotion detection.
- Participated in various shared task competitions focused on Natural Language Processing (NLP).

CUET NLP Lab

Undergraduate Student Researcher

June 2021 — July 2023

- **Dataset Development:** Developed datasets tailored for low-resource languages (LRLs): (1) E-MBAD (Multilabel Bengali Aggressive Dataset) for multilabel aggressive text classification, (2) MAD (Multimodal Aggressive Dataset) for detecting multimodal aggressive memes from social media and (3) STeX (Scientific Text Dataset) for classifying scientific text in Bengali.
- **Multilabel Aggression Detection:** Evaluated machine learning, deep learning models, and transformer-based approaches for Bengali aggressive text detection and classification.

PROFESSIONAL EXPERIENCE

University of Asia Pacific— UAP

Dhaka, Bangladesh

Lecturer

January 2025 — July 2025

- Delivering lectures and fostering an engaging learning environment in subjects such as Object-Oriented Programming and Software Engineering.
- Encouraging hands-on learning by involving students in practical projects related to software engineering, Python programming, and web development.
- Contributing to departmental research efforts and playing an active role in enhancing teaching quality and academic standards.

Daffodil International University — DIU

Dhaka, Bangladesh

Lecturer

January 2024 — January 2025

- Preparing and delivering class lectures and facilitating learning in courses such as Object-Oriented Programming, Natural Language Processing, C Programming, Information Security, Algorithms.
- Involving students in practical learning activities to enhance their understanding of programming in C and Python.
- Serving as a committee member of the accreditation committee, with a specific focus on Self Assessment Report (SAR)-Criteria-4.

- Making a contribution to departmental research as well as the improvement of standards and quality in teaching.

Bangladesh Research and Education Network (BdREN)

Dhaka, Bangladesh

Academic Intern

October 2022 — November 2022

- Assisted in the development of an e-commerce website using Python.
- Supported the integration of back-end services and databases for seamless operation.
- Participated in team meetings and provided technical support to improve the efficiency of the project.

PROJECTS

- **House Price Prediction Modeling using Machine Learning:** In this project, we employed four machine learning models to predict house prices, with the RandomForestRegressor model yielding the lowest mean absolute error and providing the best balance. In addition, a website was developed using the results of the machine learning models.
- **Classification of Bengali Movie Reviews using Machine Learning Techniques:** We explored a variety of machine learning techniques to classify Bengali movie reviews, focusing on sentiment analysis to determine whether the reviews were positive, negative and neutral. The models were trained on a dataset of Bengali text, with performance evaluated through accuracy and other relevant metrics.
- **CUET Central Library:** We developed this website which provides a wealth of information and resources to students and faculty. It offers access to online databases, e-books, journals, and research papers, as well as traditional library services such as book borrowing and inter-library loan.

SELECTIVE HONORS AND ACHIEVEMENTS

- 3rd Position at Task 1: Violence Inciting Text Detection (VITD), First Workshop on Bangla Language Processing, EMNLP. 2023
- 13th Position at Task 2: Sentiment Analysis of Bangla Social Media Posts, First Workshop on Bangla Language Processing, EMNLP. 2023
- Dean's Award, Chittagong University of Engineering and Technology (CUET). 2023
- Teaching Assistant (TA), CSE-435: Information Security. 2022
- Honorable mention: IEEE Face The Case Competition. 2020
- Best Poster Presenter Award, CSE-244: Algorithms Design and Analysis (Sessional). 2019
- 5th position (among 15 teams): CUET Career Club Inter University Programming Contest. 2019
- Higher Secondary School Certificate (HSC) General Scholarship Award, Bangladesh Education Board. 2017
- Junior School Certificate (JSC) General Scholarship Award, Bangladesh Education Board. 2012

CO-CURRICULAR ACTIVITIES AND LEADERSHIP

- Volunteer at the 26th International Conference on Computer and Information Technology (ICCIT) at Long Beach Hotel Cox's Bazar, Chittagong, Bangladesh. 2023
- Volunteer at 3rd International Conference on Electrical, Computer and Communication Engineering (ECCE-2023) at Sheikh Kamal IT Business Incubator, CUET, Chittagong, Bangladesh. 2023
- Class Representative (CR), CUET CSE'17 Batch. February 2018 — July 2023
- RMA (Robo Mechatronics Association) Student Member. February 2018 — July 2023
- IEEE Student Member. February 2018 — July 2023

ENGLISH TEST

IELTS (Academic): 7.0 (overall score)

Listening: 7.5 — Reading: 7.5

Speaking: 7.0 — Writing: 6.5

TECHNICAL SKILLS

Core Programming: Python, C, C++

Deep Learning: Tensorflow, Keras, PyTorch, OpenCV, CUDA

Web Programming and Framework: Streamlit, Django, HTML, CSS, PHP

Database: MySQL, Firebase, Oracle

Version Controlling System: GIT

Article Writing: LaTeX

SELECTIVE TRAINING AND WORKSHOPS

- 2nd International Workshop on ‘Computational Linguistics & Bangla Language Processing (CLBLP)’ held on 21 - 22 February 2023 at CUET, Bangladesh.
- Workshop on ‘Software Engineering: Best Professional Practice’ held on 18th February 2023 at CUET, Bangladesh.
- Workshop on ‘AI and Machine Learning with python’ held on 23 June – 03 July 2022 at Sheikh Kamal IT Business Incubator, CUET, Chittagong, Bangladesh.
- Seminar on ‘Role of NLP in the Era of 4IR’ held on 3rd July 2022 at Sheikh Kamal IT Business Incubator, CUET, Chittagong, Bangladesh.
- Workshop on ‘IoT-based Smart Campus’ held on 27th December 2021 at CUET, Bangladesh

ONLINE COURSES

- Introduction to Python, *DataCamp*
- Machine Learning, *Stanford University*
- Data Scientist in Python, *Dataquest.IO*
- NLP - Natural Language Processing with Python, *Udemy*
- Fine Tune BERT for Text Classification with TensorFlow, *Coursera*
- Transformer Models and BERT Model, *Coursera*
- Tweet Emotion Recognition with TensorFlow, *Coursera*

REFERENCES

Dr. Mohammed Moshiul Hoque

Professor, Dept. of CSE, Chittagong University of Engineering and Technology (CUET), Chittagong, Bangladesh

E-mail: moshiul.240@cuet.ac.bd

Scholar Profiles: [Personal Page](#) — [Google Scholar](#) — [LinkedIn](#)

Shayla Sharmin

Assistant Professor, Dept. of CSE, Chittagong University of Engineering and Technology (CUET), Chittagong, Bangladesh

E-mail: shayla.sharmin@cuet.ac.bd

Scholar Profiles: [Personal Page](#) — [Google Scholar](#) — [LinkedIn](#)

Omar Sharif

Assistant Professor, Dept. of CSE, Chittagong University of Engineering and Technology (CUET), Chittagong, Bangladesh

E-mail: omar.sharif@cuet.ac.bd

Scholar Profiles: [Personal Page](#) — [Google Scholar](#) — [LinkedIn](#)