Md. Asif Iqbal

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🔗 Asif Iqbal Rᴳ [ResearchGate]
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🏛 ACADEMIC RECORDS

- B.Sc. in Computer Science & Engineering from **Chittagong University of Engineering and Technology (CUET)**; CGPA: **3.65/4.00, Rank -** 11th
- **Training of Trainers(ToT) from IIT Kharagpur(IITKGP) & IIT Guwahati(IITG) under BDSET project**

💼 INDUSTRY EXPERIENCE

- **Senior Assessment Developer, Workera.ai, 2021-present**
  - I design, develop, and implement high-quality assessment engines and processes. Beyond my core responsibilities, I play a pivotal role in shaping the team's strategic direction. I lead initiatives to streamline development workflows, enhance the quality of assessments, and align our objectives with organizational goals.
- **AI and ML Senior Instructor, IT Business Incubator (ITBI), CUET, 2024- present**
  - I develop and deliver courses aligned with industry standards to equip participants with cutting-edge knowledge in Artificial Intelligence and Machine Learning. I curate course content, facilitate hands-on training, and mentor learners in applying real-world AI/ML solutions.
- **Instructor, Bangladesh-Bharot Digital Service and Employment Training (BDSET) project; 2024-present**
- **Instructor, Enhancing Digital Government and Economy (EDGE) project, IICT CUET DST; 2024-present**
  - I spend some amazing time with young minds, introducing them to programming languages and other concepts related to computer science.
- **Former Intern, IIT Kharagpur (IITKGP); Supervisor: Prof. Dr. Debasis Samanta**
- **Former Research Assistant**, Computer Science & Engineering, **Chittagong University of Engineering and Technology,** Chittagong, Bangladesh; **Supervisor: Prof. Dr. Mohammed Moshiul Hoque**

Undergraduate Research Topic: Multilabel Aggression detection from text.

📖 COURSE WORK

- DevOps and MLOps Course - Udemy
- Machine Learning- Coursera
- Data Analyst & Data Scientist - dataquest.io
- Deep Learning Specialization - Deeplearning.ai
- Big Data - Contessa
- Introduction to Quantum Computing - IBM Quantum
- ICSI | CNSS Certified Network Security Specialist

🏆 ACHIEVEMENT

- **Passed ITEE – FE Exam 2019** conducted by the Japanese Government.
- **70% Scholarship Winner,** 2021 ISCEA PTAK PRIZE GLOBAL CASE COMPETITION
- **Winner** of Poster Presentation at CUET CSE Fest - 2018

🏐 CO-CURRICULAR EXPERIENCE

- **Secretary, IEEE YP Bangladesh, 2022-2023**
- **Team Member, CUET NLP LAB, 2019 - present**
- **Treasurer, IEEE Student Branch, CUET, 2019-2020**
- **Tournament Collaborator,** HULT Prize at CUET 2020
- **Team Leader**, Team RUBY, HULT Prize at CUET,2020
- Participate in IEEE Tensymp 2020, ICO 2020, ICNST'18
- **Logistic, IEEE Student Branch, CUET, 2018-2019**

- Campus Ambassador, IEEE CS BDC Winter Symposium 2020, IEEE STEP 2020 & SPAC 2018
- Volunteer at CLBLP 2019, ECCE

✔ SKILLS

Language	Python, C, C++, Bash, MySQL, JavaScript, Java, Verilog HDL
Libraries	NLTK, Scikit-learn, Gensim, Pandas, NumPy, Matplotlib, Seaborn, TensorFlow, PyTorch, Docker, Kubernetes, MLflow
Frameworks	Jupyter, Git, Latex

✔ INDUSTRY SKILLS

- Natural Language Processing (NLP)
- Machine Learning
- Artificial Intelligence
- CCNA (exploration – 1)
- Quantum Computing
- MLOps

- Data Analyst & Data Scientist
- Deep Learning
- Network Security
- IT Support Professional
- DevOps
- Large Language Model (LLM)

Language: Bengali, English, Hindi

PROJECT

➔ Research on Natural Language Processing
  - ◆ Developing and Annotation of a Dataset, low-resource NLP, Emotion Classification Semantic Similarity Measure.
➔ Machine Learning Algorithm Development
  - ◆ Refinement of K-means clustering with less computation cost.
➔ Machine Learning for Health
  - ◆ To understand the COVID-19 impact on each country. Also, to cluster patients according to their habits.
➔ Website for Teacher (Local Host-based) - 2017
  - ◆ A lab word, where I used Bootstrap, HTML, and CSS to build websites for Teachers.
➔ Obstacle Avoiding Robot - 2017
  - ◆ An Arduino-based robot can detect an obstacle and avoid it accordingly, and reach the endpoint.
➔ Line follower robot - 2017
  - ◆ An Arduino-based robot that can change direction according to its route.
➔ Airline Scheduling with MAX Flow Algorithm - 2017
  - ◆ An optimized algorithm for an Airplane can maximize its profit with sufficient resources.
➔ Footbot - 2016
  - ◆ An Arduino-based robot, controlled by Bluetooth, is used for Robo-fight.
➔ Classroom Scheduling (with Java) - 2016
  - ◆ A Java application used for scheduling the classrooms & labs of the university.

Publications

- Ricko Shaha, Dipon Talukder, **MD. Asif Iqbal**, Md. Mokammel Haque, "TOS: A Relative Metric Approach for Model Selection in Machine Learning Solutions", (IEEE RAICON 2021) [Paper]

- **MD. Asif Iqbal**, Avishek Das, Omar Sharif, Mohammed Moshiul Hoque, Iqbal H. Sarker, "BEmoC: A Corpus for Identifying Emotion in Bengali Texts", (Submitted to SN Computer Science)
    - ◆ In this work, we presented a new corpus (called BEmoC) for classifying the expression of emotion in Bengali texts and explained its development processes in detail.

- **Md. Asif Iqbal**, Omar Sharif, Mohammed Moshiul Hoque and Iqbal H. Sarkar, "Word Embedding based Textual Semantic Similarity Measure in Bengali", (YSC 2021)
    - ◆ This paper proposed word embedding-based techniques (Word2Vec, GloVe, FastText) devoted to estimating the semantic similarity between Bengali sentences. Due to the unavailability of the standard dataset, this work developed a Bengali dataset containing 187031 text documents with 400824 unique words named SemSD.

- Md. Zubair, **MD. Asif Iqbal**, Iqbal H. Sarker, Avijeet Shil, Enamul Haque, Moshiul Haque, "An Improved K-means Clustering Algorithm to Reduce the Computational Cost", (International Journal of Data Science and Analytics) [Paper]
    - ◆ In this paper, we proposed an efficient algorithm that can determine the initial centroids of the k-means algorithm and analyze their aspect on different types of datasets.

- Fatima Jahara, Adrita Barua, **Md. Asif Iqbal**, Avishek Das, Omar Sharif, Mohammed Moshiul Hoque and Iqbal H. Sarker, "Towards POS Tagging Methods for Bengali Languages: A Comparative Analysis", (ICO 2020) [Paper]
    - ◆ In this paper we make a comparative analysis of the tagging methods that were performed using two tagsets (30-tag and 11-tag) with accuracy measures.

- Avishek Das, **Md. Asif Iqbal**, Omar Sharif and Mohammed Moshiul Hoque, "BEmoD: Development of Bengali Emotion Dataset for Classifying Expressions of Emotion in Texts", (ICO 2020) [Paper]
    - ◆ This paper presents an emotional dataset (hereafter called 'BEmoD') for analysis of emotion in Bengali texts and describes its development process, including data crawling, pre-processing, labeling, and verification.

- Md Zubair, **MD Asif Iqbal**, Avijeet Shil, Enamul Haque, Mohammed Moshiul Hoque, Iqbal H Sarker, "An Efficient K-means Clustering Algorithm for Analysing COVID-19", (HIS 2020) [Paper]
    - ◆ In this paper, we proposed an efficient K-means clustering method that determines the initial centroids of the clusters efficiently. Based on this proposed method, we had determined health care quality clusters of countries utilizing the COVID-19 datasets.

- Nayan Das, **MD Asif Iqbal**, "Nearest Blood & Plasma Donor Finding: A Machine Learning Approach", (ICCIT 2020) [Paper]
    - ◆ In our whole project, we had built a platform for the blood donor and receiver. We had combined two well-known clustering algorithms, k-means, and agglomerative clustering, to solve the blood donor problem.

- **MD Asif Iqbal**, "A Fully Automatic Transport System with LoRa and Renewable Energy Solution", (IEEE Tensymp 2020) [Paper]
    - ◆ This paper proposed an overview of making a new automatic robotic vehicle system.

- **MD. Asif Iqbal**, Md Sabir Hossain, Abir Ebna Harun, "Airline Scheduling With MAX Flow Algorithm", (ICNST'18 publication) [Paper]
    - ◆ In this research work, we have tried to take input from both the admin and customer. A customer can get information about flight and the admin will access everything they want.

- Suborno Deb Bappon, **MD. Asif Iqbal**, "Classification of Tourism Reviews from Bengali Texts using Multinomial Naïve Bayes", (ICCIT 2022) [Paper]