

## CONTACT

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## RESEARCH AREAS

### ML, ML-System and NLP

GNN  
Image Captioning  
TTS and ASR  
Lemmatization and PoS-Tagger  
Transfer Learning

### Data Mining

Sequential Pattern Mining  
Graph Mining  
Weighted Pattern Mining  
High-utility Pattern Mining  
Data Stream Mining

## AWARDS

### Dean's Award 2015

Faculty of Engineering and Technology, University of Dhaka  
–For exceptional academic performance

### Prof. Dr. Md. Lutfar Rahman Award, 2015

Department of Computer Science and Engineering, University of Dhaka  
–For securing highest CGPA in B.Sc. Examination 2015

## SKILLS

### C, C++, Java, Python

### PyTorch

### Oracle, MySql

### PHP, Javascript, Type-Script

# MD. ASHRAFUL ISLAM

Ph. D. Graduate Student - Computer Science, UMass Amherst

## EDUCATION

### Ph.D. - Computer Science

University of Dhaka, Dhaka, Bangladesh

Topic: Machine Learning System

Fall 23-Ongoing

### M. S. - Computer Science and Engineering

University of Dhaka, Dhaka, Bangladesh

CGPA: 3.81/4.00 (Rank: 1st)

2016-2017

### B. Sc. - Computer Science and Engineering

University of Dhaka, Dhaka, Bangladesh

CGPA: 3.89/4.00 (Rank: 1st)

2012 - 2015

### Higher Secondary Certificate Examination

Amrita Lal Dey College, Barisal, Bangladesh

GPA: 5.00/5.00 (Awarded HSC Merit Scholarship, Barisal Board)

2011

### Secondary School Certificate Examination

Babuganj Pilot Secondary School, Barisal, Bangladesh

GPA: 5.00/5.00 (Awarded SSC Merit Scholarship, Barisal Board)

2009

## WORK EXPERIENCE

### Assistant Professor

Dept. of CSE, University of Dhaka, Bangladesh

Courses conducted: Design and Analysis of Algorithms-II

Jun 22 - Ongoing

### Lecturer

Dept. of CSE, University of Dhaka, Bangladesh

Courses conducted: Linear Algebra, Introduction to Data Mining

Sep 19 - Jun 22

### Lecturer

Dept. of CSE, East West University, Bangladesh

Courses conducted: Data Mining, Artificial Intelligence

Apr 18 - Sep 19

### Lecturer

Dept. of CSE, United International, Bangladesh

Courses conducted: Pattern Recognition, Artificial Intelligence

May 16 - Apr 18

## PROJECTS

Assessment of Coastal and Marine Biodiversity Resources and Ecosystems to Implement the Blue Economy Action Plan  
Database Consultant

2021-2022

Organization: Department of Environment, People's Republic of Bangladesh

Development of A Robust Bangla Language Model and a Bangla NLP Server  
Project Co-Investigator

2021-2022

Organization: University of Dhaka (Centennial Research Grant)

Speech Synthesis in Bangla  
Project Co-Investigator

2022-2023

Organization: University Grant Commission (UGC Grant 2022-2023)

## PUBLICATIONS

Weighted frequent sequential pattern mining

Springer

Md. Ashraful Islam, Mahfuzur Rahman Rafi, Al-amin Azad, Jesan Ahammed Ovi, *Applied Intelligence*, 2021

BaNeL: an encoder-decoder based Bangla neural lemmatizer

Springer

Md. Ashraful Islam, Md Towhiduzzaman, Md Bhuiyan, Tauhidul Islam, Abdullah Al Maruf, Jesan Ahammed Ovi, *SN Applied Sciences*, 2022

BaNeP: An End-to-End Neural Network Based Model for Bangla Parts-of-Speech Tagging

IEEE

Jesan Ahammed Ovi, Md. Ashraful Islam, Md Rezaul Karim, *IEEE Access*, 2022

UGMINE: Utility Based Graph Mining

Springer

Md. Tanvir Alam, Amit Roy, Chowdhury Farhan Ahmed, Md. Ashraful Islam, Carson K. Leung, *Applied Intelligence*, 2022

Graph-based Substructure Pattern Mining with Edge-Weight (under revision)

Springer

Md. Ashraful Islam, Chowdhury Farhan Ahmed, Carson K. Leung, Md. Tanvir Alam, *Applied Intelligence*, 2023

WFSM-MaxPWS: an efficient approach for mining weighted frequent subgraphs from edge-weighted graph databases

Springer

Md. Ashraful Islam, Chowdhury Farhan Ahmed, Carson K Leung, Calvin SH Hoi, *Pacific-asia conference on knowledge discovery and data mining*, 2018

WeFreS: weighted frequent subgraph mining in a single large graph

IBAI Publishing

Nahian Ashraf, Riddho Ridwanul Haque, Md. Ashraful Islam, Chowdhury Farhan Ahmed, Carson K Leung, Jiaxing Jason Mai, Bryan H Wodi, *Industrial conference on data mining*, 2019

Factoid Question Answering over Bangla Comprehension

IEEE

Md Asiful Haque, Shamima Sultana, Md Jayedul Islam, Md. Ashraful Islam, Jesan Ahammed Ovi, *International Symposium on Multidisciplinary Studies and Innovative Technologies*, 2020

An efficient approach for sequential pattern mining on gpu using cuda platform

IEEE

Shah Mohammed Nuruddin, Md Didarul Islam, Md Shafiqul Alam, Jesan Ahammed Ovi, Md. Ashraful Islam, *International Symposium on Multidisciplinary Studies and Innovative Technologies*, 2020

### Weighted Clickstream Mining Using Pre-order Linked Web-Access Pattern Tree

IEEE

Abu Naser, Nusrat Sultana, **Md. Ashraful Islam**, Jesan Ahammed Ovi, *International Conference for Emerging Technology, 2021*

### An Efficient Approach for Mining Weighted Frequent Patterns from Data Stream

IEEE

Jesan Ahammed Ovi, **Md. Ashraful Islam**, Jannatul Ferdosh Nima, *International Conference for Emerging Technology, 2021*

### Mining High Utility Subgraphs

IEEE

Md Tanvir Alam, Amit Roy, Chowdhury Farhan Ahmed, **Md. Ashraful Islam**, Carson K Leung, *International Conference on Data Mining Workshops, 2021*