## Abdus Salam Azad

EMPLOYMENT & Lecturer August 2014 - Present

CONTACT Department of Computer Science and Engineering
INFORMATION Bangladesh University of Engineering and Technology

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RESEARCH MINTERESTS I

Machine Learning, Deep Learning, Natural Language Understanding, Image Understanding,

Information Retrieval, Memetic Algorithms, Combinatorial Optimization

EDUCATION October, 2014 - January, 2017: M. Sc. in Computer Science and Engineering

Department of Computer Science and Engineering (CSE)

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh.

CGPA: 4.00/4.00

March, 2009 - June, 2014: B. Sc. in Computer Science and Engineering

Department of Computer Science and Engineering (CSE)

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh.

CGPA: 3.95/4.00 (Major CGPA: 3.996) Ranked  $3^{rd}$  in a class of 153 students

Publications

Abdus Salam Azad, Md. Monirul Islam, and Saikat Chakroborty. A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP with Interdependent Depot Operations. IEEE Transactions on Cybernetics, January, 2017. [Impact Factor: 7.384]

Abdus Salam Azad, Md.Kamrul Hasan, M.Arif Imtiazur Rahman, Md.Mustafizur Rahman, and Nashid Shahriar. Exploring the behavior and changing trends of rainfall and temperature using statistical computing techniques. In Tanvir Islam, Prashant K. Srivastava, Manika Gupta, Xuan Zhu, and Saumitra Mukherjee, editors, Computational Intelligence Techniques in Earth and Environmental Sciences, pages 53-78. Springer Netherlands, 2014.

RESEARCH EXPERIENCE Master's Thesis with Prof. Md. Monirul Islam on

A Heuristic Initialized Stochastic Memetic Algorithm for MDPVRP with Interdependent Depot Operations

Undergraduate Thesis with Prof. Md. Monirul Islam on

Diversity Guided Unified Evolutionary Framework for Multi Depot Periodic Vehicle Routing Problem

Winner, 1st Undergraduate Thesis Poster Presentation, 2014, CSE, BUET.

CURRENT PROJECTS

Multi objective learning to rank for citation recommendation

A multi objective learning to rank algorithm for recommending the most relevant works from the literature given an abstract or, research idea as a query.

Co-supervisor: Shubhra Kanti Karmaker Santu

Supervisor: Prof. Mohammed Eunus Ali

Machine Comprehension

A graph-traversal based approach for machine comprehension, i.e., answering questions based on a given piece of text.

SELECTED
UNDERGRAD &
MASTER'S
PROJECTS

## Finding and Describing Images with Sentences

In this study, we analyzed some of the state-of-the-art methods on searching images with sentence description and vice versa.

## Content Based Image Retrieval

Implementation of a paper on content-based image retrieval with local-tetra patterns.

## Machine Learning & Pattern Recognition Projects

Bangla Character Recognition using CNN, Implementation of Decision Tree (ID3), K-Nearest Neighbor, and Naive Bayesian Classifiers, Artificial Neural Networks, Semi-supervised Learning, Ensemble Learning, and K-means & Bisecting K-means Clustering.

Please visit my homepage for a complete list.

Selected Course-work Artificial Intelligence, Machine Learning, Pattern Recognition, Advanced Digital Image Processing, Data Mining, High Dimensional Data Management

MOOCS Particiapated Machine Learning (Coursera) and Deep Learning (Udacity)

Lab Courses Instructed Artificial Intelligence (January-2016 and January-2015 Semester, 120 Students) Machine Learning (January-2015 and July-2015 Semester, 60 Students), Microprocessor and Microcontrollers (July-2017, January-2017, Jan-2016, and July-2015 Semesters, 120 Students), Software Development (July-2017 Semester, 120 Students), etc.

Currently, I am also instructing an **applied machine learning course** for a group of 20 graduates from five different institutions of Bangladesh.

SCHOLARSHIPS, AWARDS, AND GRANTS Winner, 1st Undergraduate Thesis Poster Presentation, 2014, CSE, BUET.

Travel Grant, NUS School of Computing Summer School, 2017, National University of Singapore

Winner, Android Application Development Contest, Samsung R&D, Bangladesh, 2013

Dean's Honor List, BUET

University Merit Scholarship, BUET

Language, Libraries & Platforms Language: C, C++, Java, Python

Machine Learning Libraries: Scikit-learn, WEKA, Keras, Tensor Flow

Other: R, MatLab, Prolog

Development & Database: Android, Oracle, MySQL, CodeIgniter

Hardware: ATmega32 - Atmel Corporation, Arduino

COMMUNITY SERVICES Reviewer

IEEE Transactions on Cybernetics

Founding Member

Information and Communication Secretary September 2011 – November 2013

Engineering Students Association of Bangladesh (ESAB)

Organizing Committee Member

WALCOM 2015, NSysS 2015, 2016, 2017