



# ABU QUWSAR OHI

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QuwsarOhi

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Dhaka

## EXPERIENCE

### Research Assistant

#### Bangladesh University of Business & Technology

August 1, 2020 – Ongoing Dhaka, Bangladesh

- Researching new architectural and mathematical strategies to reduce the current limit of deep learning based approaches.
- Developing and improving handwriting recognition systems to classify writers based on their handwriting.
- Researching and developing real-world speaker recognition systems.

## PUBLICATIONS

### Journal Articles

- Ohi, Abu Quwsar, M. F. Mridha, et al. (Dec. 2020). "Exploring optimal control of epidemic spread using reinforcement learning". In: *Scientific Reports* 10.1. DOI: [10.1038/s41598-020-79147-8](https://doi.org/10.1038/s41598-020-79147-8).
- Ohi, Abu Quwsar, MF Mridha, Farisa Benta Safir, et al. (2020). "AutoEmbedder: A semi-supervised DNN embedding system for clustering". In: *Knowledge-Based Systems*, p. 106190. DOI: [10.1016/j.knosys.2020.106190](https://doi.org/10.1016/j.knosys.2020.106190).
- Ohi, A. Q. et al. (2021). "FabricNet: A Fiber Recognition Architecture Using Ensemble ConvNets". In: *IEEE Access* 9, pp. 13224–13236. DOI: [10.1109/ACCESS.2021.3051980](https://doi.org/10.1109/ACCESS.2021.3051980).
- Mridha, MF, Abu Quwsar Ohi, M Ameer Ali, Mazedul Islam Emon, et al. (2020). "BanglaWriting: A multi-purpose offline Bangla handwriting dataset". In: *Data in Brief*, p. 106633. DOI: [10.1016/j.dib.2020.106633](https://doi.org/10.1016/j.dib.2020.106633).
- Ohi, Abu Quwsar, MF Mridha, Md Abdul Hamid, Muhammad Mostafa Monowar, Dongsu Lee, et al. (2020). "A Lightweight Speaker Recognition System Using Timbre Properties". In: *The Journal of Contents Computing* 2.1, pp. 139–151. DOI: [10.9728/jcc.2020.06.2.1.139](https://doi.org/10.9728/jcc.2020.06.2.1.139).
- Ohi, Abu Quwsar, MF Mridha, Md Abdul Hamid, Muhammad Mostafa Monowar, Md Ferdous Mridha, et al. (2020). "Full Dynamic Transmission Model and Threat Analysis of COVID-19". In: *The Journal of Contents Computing* 2.1, pp. 127–138. DOI: [10.9728/jcc.2020.06.2.1.127](https://doi.org/10.9728/jcc.2020.06.2.1.127).

### Conference Proceedings

- Mridha, MF, Md Saifur Rahman, and Abu Quwsar Ohi (2020). "Human Abnormality Detection Based on Bengali Text". In: *2020 IEEE Region 10 Symposium (TENSYP)*. IEEE, pp. 1102–1105. DOI: [10.1109/TENSYP50017.2020.9230629](https://doi.org/10.1109/TENSYP50017.2020.9230629). URL: <https://arxiv.org/abs/2007.10718>.
- Kabir, Md Mohsin et al. (2020). "An Evolution of CNN Object Classifiers on Low-Resolution Images". In: *2020 IEEE 17th International Conference on Smart Communities: Improving Quality of Life Using ICT, IoT and AI (HONET)*. IEEE, pp. 209–213. DOI: [10.1109/HONET50430.2020.9322661](https://doi.org/10.1109/HONET50430.2020.9322661).

## INTERESTS

Deep Learning Pattern Recognition

Computer Vision Problem Solving

Research & Development

## PROGRAMMING SKILLS

Python C++ Latex Tensorflow

Keras Sklearn Matplotlib NumPy

## ACQUAINTED WITH

Linux Git Docker ORM Django

HTML Bootstrap CSS

## ACHIEVEMENTS



### Programming Contest

Total 5 times champion in BUBT Intra University Programming Contest



### National Collegiate Programming Contest (NCPC)

Placed among top 31



### ICPC - Dhaka Regional Contest

Attended ICPC Dhaka Regional 2 times and placed among top 70



### Inter University Programming Contest

Attended more than 5 contests and conquered highest rank 7



### Problem Solver

Solved around 2000 problems in various online judges

## PERSONAL PROJECTS

### plagIT

A plagiarism checker for programming languages

plugIT is a plagiarism checker that checks for plagiarism based on the lexical changes of two scripts. plugIT currently supports plagiarism check on C, C++, Python, and Java.

## Book Chapters

- Kabir, Muhammad Mohsin, Abu Quwsar Ohi, and MF Mridha (2020). *A Multi-Plant Disease Diagnosis Method using Convolutional Neural Network*. Springer. URL: <https://arxiv.org/abs/2011.05151>.

## Preprints

- Mridha, MF, Abu Quwsar Ohi, M Ameer Ali, Muhammad Mostafa Monowar, et al. (2021). *U-vectors: Generating clusterable speaker embedding from unlabeled data*. URL: <https://arxiv.org/abs/2102.03868>.

## VOLUNTEER EXPERIENCE

### Problem Setter & Judge

#### Bangladesh University of Business and Technology

 From 2019 – Present

- Planning & managing intra-university programming contests.
- Writing & collecting problem-sets and conducting critical problem-set selection tasks.

### Conveiner

#### Competitive Programming Community (BUBT)

 From 2019 – Present

- Planning semester-wise schedule for training classes.
- Training & guiding junior competitive programmers.

## ONLINE PROGRAMMING PROFILES

- Solved 470+ problems in [UVA online judge](#).
- Solved 220+ problems in [LightOJ](#).
- [CodeForces](#) highest rating 1581.
- [CodeChef](#) highest rating 1948.

## EDUCATION

### B. Sc in CSE

#### Bangladesh University of Business & Technology

 June 2016 – June 2020

 Dhaka, Bangladesh

- CGPA - 3.72

### HSC

#### Savar Cantonment Public School & College

 2013 – 2015

 Savar, Dhaka

- GPA - 4.87

## EmployeeManagement

### An employee management system

A web-based employee management system that registers employees & keeps a log of their salary, pay grade, role, and personal information.

## REFEREES

### Prof. Muhammad Firoz Mridha

@ Bangladesh University of Business and Technology

✉ [firoz@bubt.edu.bd](mailto:firoz@bubt.edu.bd)

### Prof. Md. Abdul Hamid

@ King Abdulaziz University

✉ [mabdulhamid1@kau.edu.sa](mailto:mabdulhamid1@kau.edu.sa)

### Md. Saifur Rahman

@ Bangladesh University of Business and Technology

✉ [saifurs@gmail.com](mailto:saifurs@gmail.com)