

MD ABU QUWSAR OHI



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📍 Dhaka, BD

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🏠 <https://quwsarohi.github.io>

RESEARCH INTERESTS

Artificial Intelligence

Deep Learning

Computer Vision

Pattern Recognition

Reinforcement Learning

PROGRAMMING SKILLS & TOOLS

Python

C++

Latex

Tensorflow

Pytorch

Sklearn

Matplotlib

NumPy

Git

Linux

Docker

Django

Bootstrap

ACADEMIC EXPERIENCE

Lecturer

Bangladesh University of Business & Technology

📅 April 15, 2021 – Ongoing

📍 Mirpur, Dhaka, Bangladesh

RESEARCH EXPERIENCE

Research Assistant

Bangladesh University of Business & Technology

📅 August 1, 2020 – Ongoing

📍 Mirpur, 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.

Researcher

Advanced Machine Learning Lab

📅 August, 2020 – Ongoing

📍 Mirpur, Dhaka, Bangladesh

- Assisting fellow researchers for research and writing papers.
- Collaborating with labs and team-based research tasks.

PUBLICATIONS

📄 Journals (8 Total)

- “Exploring optimal control of epidemic spread using reinforcement learning”
Ohi, Abu Quwsar, M. F. Mridha, Muhammad Mostafa Monowar, and Md. Abdul Hamid
Scientific Reports 10.1. Nature Publishing Group, 2020
DOI: [10.1038/s41598-020-79147-8](https://doi.org/10.1038/s41598-020-79147-8)
- “AutoEmbedder: A semi-supervised DNN embedding system for clustering”
Ohi, Abu Quwsar, MF Mridha, Farisa Benta Safir, Md Abdul Hamid, and Muhammad Mostafa Monowar
Knowledge-Based Systems p. 106190. Elsevier, 2020
DOI: [10.1016/j.knosys.2020.106190](https://doi.org/10.1016/j.knosys.2020.106190), URL: <https://arxiv.org/abs/2007.05830>

- “FabricNet: A Fiber Recognition Architecture Using Ensemble ConvNets”
Ohi, A. Q., M. F. Mridha, M. A. Hamid, M. M. Monowar, and F. A. Kateb
IEEE Access 9 pp. 13224–13236. 2021
DOI: [10.1109/ACCESS.2021.3051980](https://doi.org/10.1109/ACCESS.2021.3051980)
- “Deep Speaker Recognition: Process, Progress, and Challenges”
Ohi, Abu Quwsar, M. F. Mridha, Md. Abdul Hamid, and Muhammad Mostafa Monowar
IEEE Access pp. 1–1. 2021
DOI: [10.1109/ACCESS.2021.3090109](https://doi.org/10.1109/ACCESS.2021.3090109)
- “A Survey of Speaker Recognition: Fundamental Theories, Recognition Methods and Opportunities”
Kabir, Muhammad Mohsin, MF Mridha, Jungpil Shin, Israt Jahan, and Abu Quwsar Ohi
IEEE Access. IEEE, 2021
DOI: [10.1109/ACCESS.2021.3084299](https://doi.org/10.1109/ACCESS.2021.3084299)
- “BanglaWriting: A multi-purpose offline Bangla handwriting dataset”
Mridha, MF, Abu Quwsar Ohi, M Ameer Ali, Mazedul Islam Emon, and Muhammad Mohsin Kabir
Data in Brief p. 106633. Elsevier, 2020
DOI: [10.1016/j.dib.2020.106633](https://doi.org/10.1016/j.dib.2020.106633)
- “A Lightweight Speaker Recognition System Using Timbre Properties”
Ohi, Abu Quwsar, MF Mridha, Md Abdul Hamid, Muhammad Mostafa Monowar, Dongsu Lee, and Jinsul Kim
The Journal of Contents Computing 2.1 pp. 139–151. 2020
DOI: [10.9728/jcc.2020.06.2.1.139](https://doi.org/10.9728/jcc.2020.06.2.1.139), URL: <https://arxiv.org/abs/2010.05502>
- “Full Dynamic Transmission Model and Threat Analysis of COVID-19”
Ohi, Abu Quwsar, MF Mridha, Md Abdul Hamid, Muhammad Mostafa Monowar, Md Ferdous Mridha, and AKM Ashiquzzaman
The Journal of Contents Computing 2.1 pp. 127–138. 2020
DOI: [10.9728/jcc.2020.06.2.1.127](https://doi.org/10.9728/jcc.2020.06.2.1.127)

Conference Proceedings (3 Total)

- “Human Abnormality Detection Based on Bengali Text”
Mridha, MF, Md Saifur Rahman, and Abu Quwsar Ohi
IEEE Region 10 Symposium (TENSYP) pp. 1102–1105. 2020
DOI: [10.1109/TENSYP50017.2020.9230629](https://doi.org/10.1109/TENSYP50017.2020.9230629), URL: <https://arxiv.org/abs/2007.10718>
- “An Evolution of CNN Object Classifiers on Low-Resolution Images”
Kabir, Md Mohsin, Abu Quwsar Ohi, Md Saifur Rahman, and MF Mridha
IEEE 17th International Conference on Smart Communities: Improving Quality of Life Using ICT, IoT and AI (HONET)
pp. 209–213. 2020
DOI: [10.1109/HONET50430.2020.9322661](https://doi.org/10.1109/HONET50430.2020.9322661)
- “End-to-End Optical Character Recognition for Bengali Handwritten Words”
Safir, Farisa Benta, Abu Quwsar Ohi, Muhammad F Mridha, Muhammad Mostafa Monowar, and Md Abdul Hamid
2021 National Computing Colleges Conference (NCCC) pp. 1–7. 2021
DOI: [10.1109/NCCC49330.2021.9428809](https://doi.org/10.1109/NCCC49330.2021.9428809)

Book Chapters (1 Total)

- *A Multi-Plant Disease Diagnosis Method Using Convolutional Neural Network*
Kabir, Muhammad Mohsin, Abu Quwsar Ohi, and M. F. Mridha
Computer Vision and Machine Learning in Agriculture pp. 99–111. Springer Singapore, 2021
DOI: [10.1007/978-981-33-6424-0_7](https://doi.org/10.1007/978-981-33-6424-0_7), URL: <https://arxiv.org/abs/2011.05151>


Under Review (1 Total)


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

ACHIEVEMENTS

 **Programming Contest Winner**
Total 5 times champion in BUBT Intra University Programming Contest

 **National Collegiate Programming Contest (NCPC)**
Placed among top **31**

 **International Collegiate Programming Contest - 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

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 Computer Science and Engineering

Bangladesh University of Business & Technology


 June 2016 – June 2020

- CGPA - 3.71 (out of 4)

 Mirpur, Dhaka, Bangladesh

Higher Secondary School Certificate

Savar Cantonment Public School & College

 2013 – 2015

- GPA - 4.83 (out of 5)

 Savar, Dhaka, Bangladesh

INDUSTRY EXPERIENCE

Software Engineer (Intern)

KloverCloud

 From November, 2020 – January, 2021

- Designing and developing web applications.
- Deploying and testing application in Kubernetes.

VOLUNTEER EXPERIENCE

Problem Setter & Judge

Bangladesh University of Business & 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.

REFEREES

Prof. Muhammad Firoz Mridha

@ Bangladesh University of Business and Technology

✉ firoz@bubt.edu.bd

Prof. Md. Abdul Hamid

@ King Abdulaziz University

✉ mabdulhamid1@kau.edu.sa