

FAHIM HAFIZ

Lecturer, Department of CSE, United International University, Dhaka, Bangladesh
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Personal Website LinkedIn Google Scholar GitHub

RESEARCH INTERESTS

Machine Learning, , IoT, Health Informatics, Computer vision and HCI.

EDUCATION

United International University, Dhaka, Bangladesh June 2023 — Present
Master of Science (M.Sc) in Computer Science Engineering

Bangladesh University Of Engineering and Technology, Dhaka, Bangladesh February 2016 — January 2021
Bachelor of Science (B.Sc) in Electrical and Electronic Engineering CGPA: 3.87(13th in the Department)

RESEARCH and ACADEMIC EXPERIENCE

North South University Dhaka, Bangladesh
Research Assistant 2022 — Present

United International University Dhaka, Bangladesh
Lecturer, Department of CSE February 2022 — Present

Military Institute of Science and Technology Dhaka, Bangladesh
Lecturer, Department of EECE March 2021 — February 2022

PROJECTS EXPERIENCE

Designing Microprocessor Lab and Network Lab Project Manual using Raspberry Pi (ongoing) 2024-present

Image processing in SEM Images (ongoing) 2024-present

Unsupervised Clustering in single-cell RNA-seq data 2023
In this work, I tried to apply different clustering algorithms in scRNA-seq data for enhanced clustering accuracy for such unstructured data.

Face Recognition based security system using Deep Neural Networks 2019
We completed this project during our undergraduate studies, deploying TensorFlow to create a deep neural network for a real-time, face recognition-based security system.

Hand Gesture Controlled Robotic Arm Using EMG Sensor 2018
Undergraduate Level, BUET

‘Catch The balls’- A game for interactive logical gaming system using proteus 2018
Undergraduate Level, BUET

PUBLICATIONS

Conference paper
[Accepted in Tiny Tracks, ICLR-24] Sayeedi, M.F.A., Hafiz, F. and Rahman, M.A., 2024. MosquitoFusion: A Multiclass Dataset for Real-Time Detection of Mosquitoes, Swarms, and Breeding Sites Using Deep Learning. arXiv preprint arXiv:2404.01501.

Journal paper
[Under review in Wiley’s Computer Applications in Engineering Education] Designing a Microprocessors and Microcontrollers Laboratory Course Addressing Complex Engineering Problems and Activities

Conference paper
[Under review in ICLR-25] Enhancing Typing Speed and Ergonomics Through Optimal Keyboard Design: A Reinforcement Learning Approach

AWARDS and CERTIFICATES

AI in Public Health Workshop

Workshop on time series forecasting using Deep Learning Methods.

Child Health Research Foundation, Bangladesh
2024

Organiser Appreciation Award

Awards for organising the CSE Project Show each trimester

Dept. of CSE, UIU
2024

Dean's List Award

Given to students who achieve CGPA above 3.75

Undergraduate Level, Dept. of EEE, BUET
2017-2021

Winner, Inter University MATLAB Competition

2nd in MATLAB Contest in BUET

EEE DAY Competition '19, BUET
2019

OTHER EXPERIENCES

Currently overseeing the responsibilities of UIU Robotics Club

Moderator

UIU Robotics Club, UIU
January, 2024 — Present

Organizing 'CSE Project Show' in each trimester at UIU

Main Organiser

UIU
2023 — Present

Working in a voluntary blood donor organization'BADHAN'

Vice President, Kazi Nazrul Islam Hall BADHAN Zone

BUET
2019 — 2020

SKILLS

- **Programming:** MATLAB, PYTHON (Numpy, Pandas, Pytorch), C, R
- **Software:** Proteus, LTSpice, Arduino, Origin, VS-Code
- **Hardwares(Microcontrollers):** Arduino, ESP32, Raspberry Pi