Md. Farhadul Islam

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EDUCATION

09/2019 – Present
Bachelor of Science in Computer Science
BRAC University
CGPA: 3.84, Credits Completed: 105
Dhaka, Bangladesh

PROFESSIONAL EXPERIENCE

02/2022 – Present
Student Tutor
BRAC University
Course(s):
- **CSE221** - Algorithms (Summer 2022)
- **STA101** - Introduction To Statistics (Spring 2022)

School of Data & Sciences
Dhaka, Bangladesh

03/2021 – Present
Undergraduate Research Assistant
Supervisor(s): Jannatun Noor, Meem Arafat Manab
Field: Deep Learning

SKILLS

OOP, Data Structures, Algorithms
Python, Java, C, C++

Simulation & Modeling
SciPy, SimPy, SymPy

Machine Learning/ Deep Learning
Tensorflow/Keras, ScikitLearn, OpenCV, NLTK

Web Scraping
BeautifulSoup

Database Management System
MySQL

Data Analysis, Management & Visualization
NumPy, Pandas, Matplotlib, Seaborn

Backend Web Development
Django

Basic Robotics
Arduino (C++)

PUBLICATIONS

2022 **Note: Plant Leaf Disease Network (PLeaD-Net): Identifying Plant Leaf Diseases through Leveraging Limited-Resource Deep Convolutional Neural Network**
ACM SIGCAS/SIGCHI Conference on Computing and Sustainable Societies (COMPASS)(COMPASS '22), Seattle, WA, USA.
Authors: Joyanta Jyoti Mondal, ***Md. Farhadul Islam***, Sarah Zabeen, A. B. M. Alim Al Islam, and Jannatun Noor.
Impact Factor: 2.81
DOI: https://doi.org/10.1145/3530190.3534844

2022 **Monte Carlo Dropout for Uncertainty Analysis and ECG Trace Image Classification***
S+SSPR 2022: IAPR Joint International Workshops on Statistical Techniques in Pattern Recognition (SPR 2022) and Structural and Syntactic Pattern Recognition (SSPR 2022), Montreal, Canada.
Authors: ***Md. Farhadul Islam,*** Sarah Zabeen, Md Humaion Kabir Mehedi, Shadab Iqbal, and Annajiat Alim Rasel.
*Accepted, yet to be published.

2022 **Diagnosis of Autism Spectrum Disorder Through Eye Movement Tracking Using Deep Learning***
International Conference on Information and Communication Technology for Development (ICICTD) 2022, Khulna, Bangladesh.
Authors: Nasirul Mumenin, ***Md. Farhadul Islam***, Md. Reasad Zaman Chowdhury, Mohammad Abu Yousuf.
*Accepted, yet to be published.

PROJECTS

2022 **Bangladesh Solar Irradiation Prediction Using Stacked LSTM**
Single Project
Data Collected from NSRDB, Used Lightweight Stacked LSTM Model to Predict GHI from Time Series (2018-2020) Data. Tensorflow/Kears was used.

2022 **Skin Cancer Diagnosis Using Deep Convolutional Neural Network**
Group Project
CSE438 - Applied Data Science for Practitioners Project. Got the highest grade for this project. Used Tensorflow/Keras, Scikit-Learn for ML tasks.

2022 **Malware Classification using Deep CNN on Malimg Dataset**
Single Project
Achieved high accuracy with a CNN model made from scratch. Tensorflow/Keras was used. Model was developed focusing on classifying any type of malware attack images.

2021 **Monte Carlo Dropout for Uncertainty Analysis on California House Prices Dataset**
Single Project
CSE474 - Simulation and Modeling Project. Analysis on how Feature Vectors can affect the uncertainty of an ANN model.

2021 **Brain Tumor Detection from MRI Images using CNN**
Single Project
Classified Tumor and Non-Tumor Data, using CNN, achieved high accuracy. Tensorflow/Keras was used for this task.

2021 **Auto Chloro - A Plant Disease Classifier & Remedies Provider in Bangla**
Group Project
2nd Runner up in Project Tech Tussle by IEEE Computer Society BRACU Student Chapter. Tensorflow/Keras was used for DL, EasyGUI for GUI.

2021 **Conference Management System**
Group Project
CSE370 - Database Project. For Backend Development Django was used and Used BeautifulSoup to scrape conference data. For DBMS, MySQL was used.

2020 **AirDraw-n-Match-A-Webcam-Paint-Digit-Recognition-Program**
Single Project
One of the winners in Skill Showcasing - R@D!X (Radix) by BRAC University Computer Club. Used Tensorflow/Keras, OpenCV, EasyGUI for developing the whole project.

2020 **NESARC Data Analysis, Management & Visualization**
Single Project
Coursera Course Project. Analysis on "How Depression Affects Diet and Lifestyle".

In Progress **AirWire: Predicting Air Quality Index from Sky Images**
Group Project
Responsible for Machine Learning tasks, developed TFLite version for the project's mobile app. Tensorflow/Keras, TFLite, Scikit-Learn was used.

ONLINE COURSE CERTIFICATIONS

2021 **DeepLearning.AI Tensorflow Developer** Coursera
DeepLearning.AI

2021 **AI for Medicine** Coursera
DeepLearning.AI

2021 **Machine Learning Fundamentals with Python Track** DataCamp
DataCamp

PRESENTATIONS & LECTURES

2021 — **Identification of Plant Leaf Diseases using Deep Convolutional Neural Network with Less Computational Power (Poster Presentation)**
8th International Conference on Networking, Systems and Security (NSysS 2021)
Authors: Joyanta Jyoti Mondal, ***Md. Farhadul Islam***, Sarah Zabeen, A. B. M. Alim Al Islam, and Jannatun Noor.

2022 — **Lecture on Monte Carlo Simulations**
CSE474 - Simulation & Modeling, BRAC University
Invitation from the course instructor to take a class on Monte Carlo Simulations.

AWARDS/ACHEIVEMENTS

2020 – Present — **Merit Based Scholarship**
Awarded for maintaining high CGPA. Awarded the scholarship for 5 semesters. Got upto 50% scholarship, and 10% at least.

2021 — **Winner - Skill Showcasing**
Built a program where you can draw something without a keyboard or a mouse. It does not end here, it will give a random integer to draw, the Neural Network will predict the digit that you drew. The whole program works like a game.

2021 — **3rd Place - Project Showcasing**
IEEE Project Tech Tussle 2021 sponsored by Global Brand
Team Lead, and responsible for ML development. Built a framework to classify plant disease & provide remedies. The GUI is based on Bangla Language keeping in mind that, our primary target is to create an application to predict plant diseases and provide remedies for the Bangladeshi people.

2020 — **Top 10 - Idea Presentation**
Idea Competition - BUP MindExperia 2020
9th Position in the idea contest. Leading the team and proposed the idea of Covid19 Tracker and Prediction focusing on Bangladesh.

CLUBS

Robotics Club of BRAC University - ROBU — Dhaka, Bangladesh
Secretary of Research & Project Management

- Contest organizing, Rule Books, Guiding Freshers. Moreover, prepared videos on Basics of Robotics for new comers, which is available on YouTube.
- Recognition Certificate

LANGUAGES

English
Full Working Proficiency

Bengali
Full Working Proficiency

French
Beginner

Hindi
Conversational

INTERESTS

Macro Photography | Travelling | Action Figure Collecting | Coin Collecting | Green Energy | Social Development Goals | Animal Welfare

REFERENCES

Meem Arafat Manab, *Lecturer*, Brac University
meem.arafat@bracu.ac.bd

Jannatun Noor, *Lecturer*, Brac University
jannatun.noor@bracu.ac.bd