MD MARUFI RAHMAN

⋄ marufi.ruet[at]gmail.com, rahmania444.ff[at]gmail.com

2220 W Hickory st,Denton,Texas

Linkedin: https://www.linkedin.com/in/md-marufi-rahman-384635a8

RESEARCH INTEREST

Artificial intelligence, Computer vision, Image processing

EDUCATION

Doctor of Philosophy in Computer Science and Engineering August 2019 - present
University of North Texas
Denton,Texas, CGPA: 3.82/4.00

Bachelor of Science in Electronics and Telecommunication Engineering March 2013 - Dec 2017
Rajshahi University of Engineering and Technology.
Rajshahi,Bangladesh, CGPA: 3.32/4.00

EXPERIENCE

Graduate Teaching Assistant Aug 2019- present
I have worked as a teaching assistant for courses CSCE5390 (multimedia computing), CSCE5350 (fundamentals of databases), CSCE5050 (Application of Cryptography), CSCE4355 (Database Administration), CSCE2110 (computing foundation), CSCE1030(programming and problem solving using C++). My responsibility was grading, proctoring for exams, mentoring, and helping students with coursework.

Graduate Research Assistant Aug 2020- May 2022
I have worked with my doctoral supervisor Dr.Oh on solving different image analysis challenges for the gastrointestinal videos dataset. My responsibility here was to solve and generate new ideas for medical image analysis with image processing techniques and deep learning methods.

Graduate Teaching Fellow May 2020- Aug 2020
My responsibility was teaching Undergraduate students the Fundamentals of Database Systems course(CSCE 4350). I was the summer instructor for this course.

House Tutor Jul 2018- Aug 2019
My responsibility was mentoring students for the Undergraduate Admission Test concentration on mathematics and physics preparation. I especially taught Probability, Geometry, Calculus, Matrices, electromagnetism, and optics to twelfth-grade students based on the national curriculum syllabus.

Research Assistant Dec 2016- Jul 2018
I worked with my undergraduate thesis supervisor Dr. Md Kamal Hosain for 16hrs/week. My duty there was to instruct students in selecting the desired thesis topics while completing my own dissertation. My undergraduate thesis was on designing and analyzing transcranial magnetic coils to stimulate brain neurons for various neurological disorder.

PUBLICATIONS

1. **M. M. Rahman**, M. K. Hosain, S. Ahmed and M. W. Al Azad, "Deep Transcranial Magnetic Stimulation Using Center Dense and Center Sparse Double Cone Coil on Realistic Head model," *2018 International Conference on Computer, Communication, Chemical, Material and Electronic Engineering (IC4ME2)*, Rajshahi, 2018, pp. 1-4.

2. **M. M. Rahman**, M. K. Hosain, S. Ahmed and M. W. A. Azad, "Investigation of coil designs for transcranial magnetic stimulation on realistic head model," *2017 IEEE Region 10 Humanitarian Technology Conference (R10-HTC)*, Dhaka, 2017, pp. 279-283

3. **M. M. Rahman**, J. R. Mou, K. Tara and M. I. Sarkar, "Real time Google map and Arduino based vehicle tracking system," *2016 2nd International Conference on Electrical, Computer Telecommunication Engineering (ICECTE),* Rajshahi, 2016, pp. 1-4.

4. **M. M. Rahman**, JH Oh, Wallapak Tavanapong, Johnny Wong and Piet C. de Groen, "Automated Bite-block Detection to Distinguish Colonos-copy from Upper Endoscopy using Deep Learning," *2021 16th International Conference on Visual Computing (ISVC)*, virtual, 2021, pp. 216–228.

TECHNICAL SKILLS

Programming Skill	C plus plus, Python, R, Matlab, SQL
Framework and Tools	Tensorflow, Keras,Pythorch, OpenCV, NLTK, Pandas, Numpy, Scikit learn, Scipy
Cloud Platform	GCP
Application Software	Expert on Microsoft Office TM

PROJECT WORKS

- Identifying Single Cell RNA sequence Data Using supervised learning

- Kaggle competition: COVID19 Global Forecasting (Week 4)

- GSM GPS based vehicle tracking system using Arduino

- CCTV monitoring system by face detection using python package

UNDERGRADUATE COURSES

Design and Analysis of Signal and Systems Using MATLAB, **Data structure**, **C programming**, VLSI Design, **Numerical Methods in Engineering**, Digital Signal Processing, **Digital image processing**, **Engg. Mathematics- I(Differential calculus, Integral calculus, Matrix)**, **Engg. Mathematics-II(Ordinary differential equations, Partial differential equations, Series solution, Co-ordinate geometry)**, **Engg. Mathematics-III- (Vector analysis, Fourier analysis, Laplace transforms)**, **Engg. Mathematics-IV(Complex Variable, Statistical Analysis)**, Microprocessor and Microcomputer,

GRADUATE COURSES

Programing languages, **Deep learning**, **Multimedia Computing**, Bio Computing, Parallel and Distributed Database, **Feature Engg.**,Design and Analysis of Algorithm,Human/Machine Intelligence, Machine Learning for Precision in Medicine, **Empirical Analysis**

REFERENCE

(will provide upon request)