Curriculum Vitae of Mahmudul Hasan

Experience

Graduate Teaching Assistant
(2020 - Present),
Stony Brook University,
New York

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Languages

English, Bengali

Area of Interest

Machine Learning,
Deep Learning,
Computer Vision,
Natural Language
Processing

Career Objective

Looking for a career to show the best of my professional ability, analytic skills and techniques to enhance my knowledge as well as contribute to my organization to the best of my potential.

Research

2019 **Hasan Mahmudul, Ishrak Islam, and KM Azharul Hasan. "Sentiment Analysis Using Out of Core Learning." 2019 International Conference on Electrical, Computer and Communication Engineering (ECCE). IEEE, 2019.**
https://ieeexplore.ieee.org/document/8679298
DOI:10.1109/ECACE.2019.8679298

2019 **Hasan, Mahmudul, et al. "Attack and anomaly detection in IoT sensors in IoT sites using machine learning approaches." Internet of Things 7 (2019): 100059.**
https://www.sciencedirect.com/science/article/pii/S2542660519300241
https://doi.org/10.1016/j.iot.2019.100059

2019 **Das, Dola, Nawshin Tabassum, Mahmudul Hasan, and MM A. Hashem. "Deep Neural Network Based Continuous Blood Pressure Estimation with Data Mining Techniques." In 2019 5th International Conference on Advances in Electrical Engineering (ICAEE), pp. 351-356. IEEE, 2019.**
https://ieeexplore.ieee.org/abstract/document/8975628
DOI:10.1109/ICAEE48663.2019.8975628

2019 **Peer Reviewer of "Superimposed Rule-based Classification Algorithm in IoT using One-Class Conditional Anomaly Detection"**
Proceedings of Engineering and Technology Innovation

2018 **B.Sc. Thesis: "A Study on Non-invasive Blood Glucose Measurement Techniques and Predictions"**

2019 **Tasnim Nowshin, Hasan Mahmudul, Islam Ishrak "Comparisonal study of Deep Learning approaches on Retinal OCT Image" International Conference on Innovation in Engineering and Technology (ICIET) 2019**
https://arxiv.org/abs/1912.07783

2019 **Md. Ahsan Habib, Md. Milon Islam, Muhammad Nomani Kabir, Motasim Billah Mredul and Mahmudul Hasan," Staircase Detection System for Visually Impaired People: A Hybrid Approach," Revue d'Intelligence Artificielle, Lavoisier, vol. 33, no. 5, pp. 327-334, Oct. 2019.**
https://doi.org/10.18280/ria.330501.

2019 **"Audio Future Block Prediction with Conditional Generative Adversarial Network" accepted in ICECTE 2019.**

Education

2014 - 2018 **B.Sc.** in Computer Science and Engineering — Khulna, Bangladesh
Cumulative GPA: 3.78 (Out of 4.00)
Class Position: 3^{rd}
Khulna University of Engineering & Technology

2012 - 2013 **H.S.C.** in Science — Dhaka, Bangladesh
Cumulative GPA: 5.0 (Out of 5.0)
B.A.F Shaheen College, Dhaka

2003 - 2011 **S.S.C.** in Science — Dhaka, Bangladesh
Cumulative GPA: 5.0 (Out of 5.0)
B.A.F Shaheen School, Dhaka

Projects

2019 **Traffic Signal Violation Detection System**
A Computer Vision based Traffic Signal Violation Detection System from video footage using YOLOv3 & Tkinter. (GUI Included)
`https://github.com/anmspro/Traffic-Signal-Violation-Detection-System`

2019 **Attack and Anomaly Detection in IoT Sensors in IoT Sites Using Machine Learning Approaches**
In this project, performances of several machine learning models have been compared to predict attacks and anomalies on the IoT systems accurately.
`https://github.com/Shauqi/Attack-and-Anomaly-Detection-in-IoT-Sensors-in-IoT-Sites-Using-Machine-Learning-Approaches`

2019 **Comparisonal study on Deep Learning approaches on Retinal OCT Image Analysis**
In this research, we have taken such an attempt to detect retinal diseases from optical coherence tomography (OCT) X-ray images. Here, we propose a deep learning (DL) based approach in detecting retinal diseases from OCT images which can identify three conditions of the retina.
`https://github.com/Shauqi/Comparisonal-study-on-Deep-Learning-approaches-on-Retinal-OCT-Image-Analysis`

2017 **OpenGL Computer Graphics Project**
Simple 3d objects creating and rendering
`https://github.com/Shauqi/Computer-Vision-Lab`

2017 **Opinion Mining on Bangla Datasets**
In this project i implemented nltk and sklearn of python to mine opinion from bangla language
`https://github.com/Shauqi/Opinion_Mining`

2017 **Machine Learning Algorithms and Optimization Techniques with Python**
In this project Bio-Inspired algorithms Genetic Algorithm, Particle Swarm Optimization; Machine Learning algorithm Naive Bayes are implemented and Parkinson Disease data have been analyzed using Machine Learning.
`https://github.com/Shauqi/Machine-Learning-Lab`

2017 **Modeling and Simulation with Python**
In this project some of the statistical methods have been analyzed using python language. Following methods are analyzed using programming: Monte Carlo Estimation, Linear Congruential Generator, Hypothesis Testing, Random Number Generation, Banking Simulation.
`https://github.com/Shauqi/Modelling_And_Simulation`

2017 **One Address Code Generator With Flex and Bison**
The project is on compiler designing. In this project an one address code compiler is developed. The whole project is completed using flex and bison.
`https://github.com/Shauqi/One_Adress_Code_Generator_With_Flex_and_Bison`

2016 **PhotoGalleryDatabase**
This Project is simple oracle sql database project on PhotoGallery..
`https://github.com/Shauqi/PhotoGalleryDatabase/blob/master/code/DatabaseProject.sql`

2016 **PicExBeta (Web Development)**
This is a website on photography. For server side xamp is used. The whole project is completed using HTML, CSS, PHP, AJAX, MySql.
`https://github.com/Shauqi/PicExBeta`

2015 **Info Tracker(Java Desktop software)**
This software track the rss feed of several websites and show the title, description and link. This project is done using Java programming language.
`https://github.com/Shauqi/InfoTracker`

Certifications

2016-2017 **Dean's Award**

2016-2016 **Huawei Innovation Camp**

2015-2015 **National Collegiate Programming Contest**

2017-2017 **Machine Learning (Online course by Stanford University)**

2017-2017 **Machine Learning Foundations:A Case Study Approach (Online Course Univesity of Washington)**

2018-2018 **Neural Networks and Deep Learning (Online Course by Deep Learning.ai)**

2018-2018 **Improving Deep Neural Networks: Hyperparameter tuning, Regularization and Optimization (Online Course by Deep Learning.ai)**

2018-2018 **Structuring Machine Learning Projects(Online Course by Deep Learning.ai)**

2018-2018 **Convolutional Neuaral Networks (Online Course by Deep Learning.ai)**

2018-2018 **Sequence Models (Online Course by Deep Learning.ai)**

2018-2018 **Deep Learning Specialization (Online Course by Deep Learning.ai)**

2018-2018 **Fundamentals of Scalable Data Science (Online Course by IBM)**

2018-2018 **Advanced Machine Learning and Signal Processing (Online Course by IBM)**

2018-2018 **Applied AI with DeepLearning (Online Course by IBM)**

2018-2018 **Applied AI with DeepLearning (Online Course by IBM)**

2019-2019 **Introduction to TensorFlow for Artificial Intelligence, Machine Learning, and Deep Learning (Online Course by Deep Learning.ai)**

2019-2019 **Convolutional Neural Networks in TensorFlow (Online Course by Deep Learning.ai)**

2019-2019 **Launching into Machine Learning (Online Course by Google Cloud)**

2019-2019 **Intro to Tensorflow (Online Course by Google Cloud)**

2019-2019 **How Google does Machine Learning (Online Course by Google Cloud)**

2019-2019 **Feature Engineering (Online Course by Google Cloud)**

2019-2019 **TensorFlow in Practice Specialization (Online Course by Coursera)**

2019-2019 **Sequences, Time Series and Prediction (Online Course by Coursera)**

2019-2019 **Natural Language Processing in TensorFlow (Online Course by Coursera)**

Technical Skills

Language	**Python, Java, C, C++, Android Programming**
Data-Analysis	**Scikit-learn, NLTK, Tensorflow, Theano, Keras, Pytorch, Tensorflow-js, Tensorflow Lite, OpenCV**
Data-Visualization	**Matplotlib, Seaborn, Bokeh, Dash**
Web Programming	**HTML, CSS, PHP, Ajax, Javascript, XML**
DBMS	**Oracle 10g, MySQL**
Version control	**Git**
Operating System	**Windows, Linux(1 year 6 months)**
Mobile APP	**Android**
Cloud Computing	**Dataprep, Dataflow, BigQuery, Apache Beam**

Previous Experiences

2018-2020	**Lecturer at Khulna University of Engineering & Technology**
2018-2018	**Lecturer at Eastern University**
2017-2018	**Chairperson, IEEE Student Branch KUET**
2016-2016	**Software Developer Intern at IPvision Canada Inc**

References

Professor **Dr. M. M. A. Hashem**
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