Syed Mahbubuz Zaman

Dhaka, Bangladesh
syed.mahbub.uz.zaman@g.bracu.ac.bd mahbub-zaman-rumie syedmahbubuzzaman

Education

Milestone College **2006 – 2013**
Secondary School Certificate *GPA 5.00/5.00*

Notre Dame College **2014 – 2015**
Higher Secondary Certificate *GPA 5.00/5.00*

BRAC University **Sep. 2016 – Jun. 2021**
Bachelor of Science in Computer Science and Engineering *CGPA 3.49/4.00*

Research Interest

- Artificial Intelligence
- Computer Vision
- Machine Learning
- Neural Networks

Technical Skills

Languages: Python, Java, C++, HTML/CSS, JavaScript, SQL
Developer Tools: VS Code, Net-beans, Android Studio, Anaconda, Arduino
Frameworks: Linux, GitHub, React, TensorFlow, Keras, Pandas, scikit-learn, pyTorch

Projects

Final Year Thesis Defence | *Python, Tensorflow, keras, numpy* **January 2021**

- "Dynamic spam detection system and most relevant features identification using random weight network"
- We designed a Neural Network for tackling the problem of spam classification using the enron dataset
- This was implemented by using Recurrent Neural Network models (LSTM, Bi-LSTM & GRU)

Project for IEEE ICEPE 2019 | *Arduino* **March 2019**

- **Smart Streetlight:** The proposed system is a cost effective method which uses IR sensor to detect motion of a passing car or person
- It helps to get rid problems of manual switching. The motion controlled LED consumes less energy and has a better lifespan than high energy consuming lamps.
- This project won the first prize in project showcase competition.

IEEE Format University Project | *Hardware-based* **December 2019**

- **Power Walker:** A device that generates electricity using piezoelectric transducer with pressure detection mechanism, that transforms human footsteps (kinetic energy) into electrical energy
- **Line Following Robot:** Created a line following robot from scratch that can be activated or deactivated remotely. Also, the speed of the robot moving forward or backwards could be controlled by an Android device using a Bluetooth module

Publications

Asia-Pacific Conference on Computer Science and Data Engineering **8-10 December 2021**
CSDE'21 *Brisbane, Australia*

- "A Comparative Analysis of Optimizers in Recurrent Neural Networks for Text-based Classification"
- We bench-marked about 10 different optimizers on three different RNN models (Bi-GRU, Bi-LSTM and BRNN) on three different text-based dataset
- **Submission Status:** Accepted on 30^{th} October and the Camera-ready submission done on 15^{th} November

International Seminar on Machine Learning, Optimization, and Data Science **29-30 January 2022**
2021 ISMODE *Jakarta, Indonesia*

- "An Analysis of Supervised Machine Learning Algorithms for Email Classification Employing Natural Language Processing Techniques"
- We used several Machine learning techniques and also few Deep Learning algorithms to classify E-mail spam messages from Kaminski folder of enron dataset
- For embedding we used Tf-IDF for machine Learning methods and two types of word embedding (keras and GLOVE) before we process them using DNN algorithm
- **Submission Status:** First submission done on 15^{th} November

References

Dr. Md. Ashraful Alam **ashraful.alam@bracu.ac.bd**
Assistant Professor *Department of Computer Science and Engineering, BRAC University*

Dr. Golam Robiul Alam **rabiul.alam@bracu.ac.bd**
Associate Professor *Department of Computer Science and Engineering, BRAC University*