Md Sajid Ahmed

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CAREER OBJECTIVE

Passionate Initiative, graduate skilled in leadership Communication, with a strong foundation in Machine Learning and Data Science. I am affiliated with leadership activities actively at university beside the academic works. After completing my B.Sc. in Computer Science and Engineering, I am currently seeking an institution/team to build my career in machine learning and deep learning based Research work to uphold and widen my knowledge and skills.

EDUCATION

North South University, Dhaka, Bangladesh
Bachelor of Science (B.Sc.), in Computer Science and Engineering (CSE)
Graduation: October 2019.

CGPA: 3.08/4.00 (84 % According to **NSU Grading Policy)**

Engineering University School and College, BUET Campus Dhaka-1000
Class XII (Higher Secondary Certificate),
HSC August 2015 **GPA: 4.33/5.00**

Rani Brinda Rani Government High School, Dimla (Nilphamari.)
Class IX - X (Secondary School Certificate), SSC
April 2013 **GPA: 5.00/5.00**

TECHNICAL SKILLS

Programming Languages: Python, C++, C, Java, Linux-Bash, Java

Framework: Numpy, Scikit Learn, SciPy, Matplotlib, Keras, PyTorch, Tensorflow**.**

Tools and Software: Anaconda, VS-CODE, Git, GCP Cloud, MS Office

Familiar with both Linux and Windows.

Database: MySQL, PostgreSQL, No SQL, Firebase**.**

INTERESTS

Machine Learning, Deep Learning, Computer Vision, Natural Language Processing, Data Science, Computer Architectures

Languages

Fluent in Reading, Writing, and Speaking in **English** and **Bengali**.

EXPERIENCE

Research Assistant (RA) **(Dec 19 – April 20)**

I worked in a Government Funded Project Under Dr. Tanzilur Rahman – Assistant Professor NSU ECE. in TnR Lab.

(Aug 18 – Feb 19)

Before that I worked as an Part time Research Assistant during my Junior Design Project Under Ms. Tanjila Farah.

Undergraduate Lab Instructor **(Sep 13 – Current)**

Taking Classes of Undergraduate Lab courses, Checking the Exam Scripts Grading and Evaluate Students works on Labs. And guiding them in lab practical

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Undergraduate Teaching Assistant (UGA) **(Jun 19 - Sep 19)**

Consulting on Course basis with assigned Course Students in Office time Checking Assignments Scripts and Exam Proctoring Duty.

PROJECTS

Final Year Capstone Thesis Project [1st Place in Capstone] (Jan 19 - Aug 19)

A Total Road Health Monitoring System for Bangladesh. Crowdsourced Data Collection through User Application and Smart Analyzer with Real-time Feedback System for Driving Assistance Using Computer vision and Data Mining.

Technology/Tools: *Python, Scikit-learn, Numpy, OpenCV, Keras, Tensorflow, Flask, Android Google Traffic API.*

A Text generator Using OpenAI's GPT- 2 Language Model from popular TV Show **(May 19 - Jun19)**

NLP based Text generator from Popular TV show we were using Fast Ais Open GPT-2 Language Model to generate Text and Evaluating model using existing Sequence to sequence LSTM and RNN models application.

Technology/Tools: Numpy**,** *Pytorch, Keras, Tensorflow*

Sensor Data based Human Activity Recognition Using Various Feature Engineering Techniques. **(Oct 19 - Jan 20)**

Human Activity Recognition, Time Series Data, Activity Classification, Feature Engineering, Sensor

Roads360: Road Classification in Bangladesh with Convolutional Neural Network Approach **(Aug - Nov 2018)**

The goal of our project was to detect the condition of roads and highways in Bangladesh. Based on structural and surface conditions, material characteristics and classify them accordingly, from perfect roads to severely damaged highway roads. There is a publication on this work published in IEEE Explore.

Technology/Tools: *Keras, OpenCV, Tensorflow, Flask.*

Java: MSM Encrypted Messenger **(Jun 17 - Aug 17)**

A Fully Lan/Wireless Encrypted Messenger Using Java Socket Programming and java Swing to communicate Securely within a Network system.

Technology/Tools: *Java, Java-Swing, Java Socket Programming*.

O DAAKTAR – An Online Based Doctors Appointment System

An Online Doctors Appointment System. **(May 17 - Jun 17)**

Technology/Tools: *PHP, MySQL, Bootstrap, CSS, HTML*.

8 BIT RISC Microprocessor Design Simulation. **(May 17 –Aug 17)**

An 8 Bit RISC Microprocessor. It can perform several computational tasks, like adding subtraction multiplications.

Technology/Tools: MIPS Assembly, Logisim.

AWARDS AND ACHIEVEMENTS

- **Champion: NSU ACM SC INNOVATION CHALLENGE SEASON 8**
  Project: "A Complete Road Health Monitoring System for Bangladesh."
  Verify: http://ece.northsouth.edu/nsu-acm-sc-innovation-challenge-season-8/

- **2nd Runner's up IEEE PES EEDAY 2018 Project Showcase Competition.**
  Project: "IoT-based An advanced application to decrease household electricity consumption based on weather information."

- **50 % Merit Waiver/ Scholarship Awardee.**
  50% tuition waiver recipient. Based on Academic Performance at North South University.

- **Board Scholarship (Talent-pool Category)**
  Primary School Certificate 2007

- **CERTIFICATES**
  1. **Google Cloud Platform Big Data and Machine Learning Fundamentals Certificate.**
     Link: https://coursera.org/share/dc8087b6352d4cf61f37207ce8c1ad5b
  2. **Inbound Certificate by Hubspot Academy.**
     Link: *https://tinyurl.com/y255tra2*
  3. **A Course On Data Science and Machine Learning by Stayen Bose Science Club BUET.**

Course Taken

- Introduction to Machine Learning • Pattern Recognition • Software Engineering
- Natural Language Processing • Data Communication and Networks
- Data Structures and Algorithm • Database Management Systems
- Computer Organization and Architecture • Operating Systems
- Object-Oriented Programming • Probability and Statistics • linear Algebra

Course Teaching

- CSE115- Structured Programming Language with C – (Summer 2019(TA)
- CSE231L- Digital Logic Design Lab – (Fall2019)
- CSE332L- Computer Organization and Architecture Lab (Fall 2019-Spring 2020)
- CSE311L- Database Systems management Lab(Summer 2019)

Workshop

Instructor: Intro to Machine Learning IEEE Workshop.
Instructor : NSU ACM-SC Hour of Code 2019

Publications

Conference Papers:

1. Tasmin, M., Ishtiak, T., Ruman, S. U., Suhan, A. U. R. C., Islam, N. S., Jahan, **Ahmed S.**, ... & Rahman, R. M.(2020, August). Comparative Study of Classifiers on Human Activity Recognition by Different Feature Engineering Techniques. In 2020 IEEE 10th International Conference on Intelligent Systems (IS) (pp. 93-101). IEEE.

2. Indexed by Scopus: T. Ishtiak,, **S. Ahmed**, M.H. Anila, S. Islam, R. Shelim, T. Farah,"Road state classification of Bangladesh with convolutional neural network approach", (2019) WMSCI 2019 - 23rd World Multi-Conference on Systemics, Cybernetics and Informatics, Proceedings, 4, pp.129-134.

3. T. Ishtiak, **S. Ahmed**, M. H. Anila and T. Farah, "A Convolutional Neural Network Approach for Road Anomalies Detection in Bangladesh with Image Thresholding", 2019 Third World Conference on Smart Trends in Systems Security and Sustainability (WorldS4), London, United Kingdom, 2019, pp. 376-382. doi: 10.1109/WorldS4.2019.8903936.

Journals:

1. Ahmed, S., Ishtiak, T., Suhan, A. U. R. C., Anila, M. H., & Farah, T. Road State Classification of Bangladesh with Convolutional Neural Network Approach.", (2019) Journal of Systemics, Cybernetics and Informatics: JSCI, Volume 17 - Number 4 (extended version for journal publication) **Publisher: JSCI** http://www.iiisci.org/Journal/CV$/sci/pdfs/SA676WH19.pdf

2. **Ahmed,S**.,Islam., T.,T,Hasanuzzaman, Md., Amir,Syed., Rahman, Tanzilur, Blood Glucose Level Regression for smart-phone PPG signals using Machine Learning *(Bio-sensors Applied Science Journal Under Review)*