Sohel Rana

Data Science & Artificial Intelligence (AI) Researcher•

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⚇ Purbachal New Town , Dhaka, Bangladesh

Career Objectives

I am goal oriented and dedicated towards work. I have the ability to work under pressure and meet deadlines of the Research projects. I would like to utilize my skills and experience as well as my passion for a challenging career in a dynamic and progressive sector where my creativity and innovative Capabilities can be efficiently & effectively flourish.

Working Experience

Position: " **Researcher** "

Duration: **01/03/2019-Present**
Institution: *Independent University, Bangladesh (IUB).*
Department: **School of Engineering & Computer Science**.
(*) **Major Research Areas: Data Science, Artificial Intelligence (AI)**

Research Papers/Publications

- **"Satellite Image Classification Using Deep Learning Algorithms"**
    - ❖ **Publisher:** (Only Writing Part is Pending)

- **"Tomato leaf Disease Classification Using Deep Learning Algorithms"**
    - ❖ **Publisher:** (Only Writing Part is Pending)

- **"Deep Hierarchical Spectral Spatial Features for Hyper-Spectral Image Classification Based on Hybrid 3D-2D Convolutional Neural Network(CNN)"**
    - ❖ **Publisher: (**Only Writing Part is Pending)

- **"Brain MRI Images for Brain Tumor Detection LGG Segmentation Using Deep Learning Algorithms"**
    - ❖ **Publisher:** (Only Writing Part is Pending)

- **"On-Body Circular Patch Antenna for Breast Cancer Detection"**
    - ❖ **Publisher:** IEEE   ❖ **Paper ID : 1570589604**
  - (International Electromagnetics and Antenna Conference 2019 -> October_ 2019)

Technical & Soft Skills

- **ML frameworks** : Keras , Tensorflow, Pytorch, FastAi

- **Programming :** Python , JavaScript,Matlab

- **Data Base:** SQL with Google BigQuery

- **Operating System:** Mac Os, Linux (Ubuntu) , Windows 10

- **IDE &Web tools:** Sublime Text 3 ,Anaconda, Google Colab

Core Strengths :
- **Deep Learning**.
- **Computer Vision,**
- **Supervised & Unsupervised Machine Learning**
- **Data analytics**
- **Problem Solving ,Team Work & Leadership**

Top Research Projects

(1) "Data Science for Space and Earth Science"

- **Key Words**: Space Weather Forecasting,Time Series Remote Sensing Data, Climate Change, Natural Disasters Monitoring, NASA's Eyes, Python,..

(2) "Near Real Time Air Pollution Monitoring & Forecasting in 2020 With Satellite Remote Sensing Data: A Case Study of Chine"

- Key Words: Google Earth Engine, JavaScript, Resource Watch, Public Health & Environment Science , Air Quality, Remote Sensing..

(3)"Advanced Business Intelligence & Data analytics"

- **Key Words:** Market Segmentation, Prescriptive analytics, BigQuery, Descriptive analytics, NLP, BERT, Transformer, Neural Networks, Predictive analytics, Unsupervised & Supervised ML, Statistics, Data Science.

(4)"Human Dynamics in Modern World With Artificial intelligence Applications "

- **Key Words:** Covid-19 Forecasting, Pattern & image recognition, Image Classification, Auto Encoders, U-Net , Segmentation, Neural Networks, RNN,LSTM, NLP,BERT, Transformer , CNN, Transfer Learning, Real Time Objection Detection, YoloV3&V5, Biomedical Signal Processing, Statistical modeling, Supervised, ML,ANNs, Google Big Query, Data Science

Educational Profile

- **Department : Bachelor of Science (B.Sc.) in Electrical & Electronic Engineering [Jan 2016-Dec 2019].**
  - → **Institution:** *American International University Bangladesh (AIUB).*
  - → **CGPA:** 3.25 out of 4.00
  - → Earned 145 Credit Included elective in "**Digital Design with System Verilog, VHDL**" & "**Computer System Architecture**"
  - → Undergraduate project title: **Design and Implementation of an On-Body Circular Patch Antenna for Breast Cancer Detection.**

Kaggle Competitions Achievements

- Top 1 % : " **House Prices: Advanced Regression Techniques"**
- Top 1 % : "**Titanic: Machine Learning from Disaster"**
- Top 1 %: "**Hand Digit Recognizer"**
- Top 2% **: Petals to the Metal: Flower Classification on TPU"**
- Top 8 %: **"Mechanisms of Action (MoA) Prediction"**
- Top 14%: **"Lyft Motion Prediction for Autonomous Vehicles"**
- Top 16%**: "Google Research Football with Manchester City"**
- Top 21 : "**Google Landmark Recognition 2020"**

Online Courses , Extra-Curricular Activities & Language Skills

(1) MITs Micromasters in Statistics and Data Science **: "Machine Learning with Python-From Linear Models to Deep Learning**" *At EDx online Platform"*

(2) "**Advanced Topics in SQL by Standford University** " *At Edx Online Platform*

(3) Applied Climate Change, Environment and Adaptation"
   at *NASA's AREST Online Platform*

Extra-Curricular Activities:
- **General member** at IEEE AIUB Students Branch
- Duration:2016 to 2018

Language Skills:
- Bengali(Fluent: Oral &Writing)

- English(Medium: Oral &Writing)

Certificates

- "**Machine Learning and Deep Learning for Intelligent Systems**"
  Org: *Japan Bangladesh Robotics and Advanced Technology Research Center(JBRATRC)*

- "**Student Professional Awareness Venture (SPAVe)3.0"** Presented by IEEE AIUB SB, IEEE Young Profeessionals& IEEE Bangladesh Section(BDS)
  Org: *American International University Bangladesh (AIUB)*

- "**International Workshop on Communication Skills Development-2018**" →Dhaka Round
  Org: *English Olympiad*

- **"IEEE Bangladesh Section Student Young Women Member (SYWM)Congress 2018"**
  Org: *Bangladesh University of Engineering and Technology(BUET)*

- "**Workshop on Worldwide Opportunity in VLSI" Presented by Ulkasemi at International Conference on Robotics, Electrical and Signal Processing Techniques (ICREST 2019)"**

  Org: *American International University Bangladesh (AIUB)*

References

Dr. Mahady Hasan
  Head of CSE Department ,
  Dept: School of Engineering & Computer Science,
  Lab Head: *FabLab-IUB.*
  Independent University, Bangladesh (IUB) .
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Md. Saiful Islam
  Lecturer at BRAC University,
  Department of Computer Science & Engineering (CSE)
  Senior Researcher at IUB,
  Dept:School of Engineering & Computer Science -IUB.
  Co-Advisor, Robotics Club of BRAC University- ROBU.

  Coordinator, IQAC (HEQEP & UGC) & IEB (Institution

  of Engineers, Bangladesh) Accreditation.

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