

Sohel Rana

Data Science & Artificial Intelligence (AI) Researcher •

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🌐 https://www.researchgate.net/profile/Sohel_Rana5

🌐 <https://github.com/sohel-ccse>

🌐 <https://www.kaggle.com/sohelranaccselab>

📍 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 China"

- **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 7% : "Google Research Football with Manchester City"
- Top 8 % : "Mechanisms of Action (MoA) Prediction"
- Top 16% : "Lyft Motion Prediction for Autonomous Vehicles"
- 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 Professionals& 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.

Focal Person, a2i-Access to Information .

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