



# Sohel Rana

Present Address; Village:- Khailsha,Thana:- Rupganj,District:- Narayanganj,Dhaka Division,Bangladesh  
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## Work Experiences

### Independent University, Bangladesh(IUB)

*Bashundhara R/A,Dhaka1229,BD*

POSITION; "RESEARCH ENGINEER"

*20th December, 2022 to 31th May, 2023*

- Department of School of Engineering,Technology And Sciences(SETS).
- Work Type; Full-Time
- Research Areas;Biomedical Signal Processing,Machine Learning,Deep Learning
- Key Responsibilities;Designs,develops, conducts, and monitors engineering methodologies to facilitate the accomplishment of re-search objectives.
- Meets all deadlines for research projects within established time frames

### Fab Lab Independent University, Bangladesh( Fab Lab IUB)

*Bashundhara R/A,Dhaka1229,BD*

POSITION; "APPRENTICE RESEARCHER"

*1st March, 2019 to 31th October, 2022.*

- Department of School of Engineering,Technology And Sciences(SETS).
- Work Type; Apprenticeship
- Research Areas; Machine Learning,Computer Vision, Remote Sensing,Deep Learning,Data Science, Natural Language Processing(NLP).
- Key Responsibilities;Develops appropriate models to analyze research data while managing and maintaining databases.
- Meets all deadlines for research projects within established time frames

## Expertises And Skills

### Hardware And Programming Language

Hardware Description Language,MatLab Language,Python Language,C++

### Web Application Frameworks

Streamlit,Flask, Github with Python Programming Language

### Research and Development Skills

Machine Learning,Deep Learning,Computer Vision,Big Query,SQL,Data Mining,Bigdata

### Soft And Technical Skills

Team Leadership, Team Works, Microsoft Office(Word,PowerPoint,Excel),Proteus,AutoCAD

### Software And IDE Tools

Matlab Code Editor,Google Earth Engine Code Editor,SublimeText,Google Colab,Pycharm

### Languages

English, Bengali

## Educational Backgrounds

### American International University Bangladesh(AIUB)

*408/1, Kuratoli, Khilkhet,*

*Dhaka-1229, Bangladesh*

FACULTY OF ENGINEERING,B.SC. IN EEE

*January 2016 to December 2019*

- <https://www.aiub.edu/faculties/engg>
- CGPA 3.25 out of 4.
- Major Subjects; 1.DIGITAL DESIGN WITH SYSTEM[VERILOG,VHDL And FPGAS], 2. COMPUTER SYSTEM ARCHITECTURE
- Year of Passing; 2019, Faculty Of Engineering

## Extracurricular Activities

### IEEE AIUB Student Branch

*408/1, Kuratoli, Khilkhet, Dhaka*

*1229, Bangladesh*

STUDENT MEMBER

*November,2016 to December, 2018*

- Participated in Many Events or Workshops or Seminars

## Personal Projects

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### Deep Learning Based Aerial Image Labeling Segmentation

DATA DRIVEN RESEARCH PROJECT

- Proposed a Modified DeeplabV3 Model with Resnet34 backbone Architectures.

at Kaggle Platform

July, 2022 - April, 2023

### Traffic-Forecasting-Graph-Neural-Networks And LSTM Models

DATA DRIVEN RESEARCH PROJECT

- Applied Graph-Neural-Networks And LSTM Models on PeMSD7(M/L) Traffic Dataset.

at Kaggle Platform

January, 2022 - April, 2023

### Heart-MRI-Image-Left-Atrial-Segmentation-Challenge-Via-Deep-Learning-Models

DATA DRIVEN RESEARCH PROJECT

- Applied Deep Learning And Computer Vision Architectures; U-Net; Encoder-Decoder Models

at Kaggle Platform

April, 2023 - June, 2023

## Research Project Lists

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### “Tomato Leaf Disease Detection using Customized Transfer Learning Architectures and LSTM”

DATA DRIVEN RESEARCH PROJECT

- Proposed Deep Learning Classification Models and Computer Vision Algorithms

at Bashundhara R/A, Dhaka 1229, BD

November, 2019 - July, 2022

### “Air Quality Nitrogen dioxide(NO2)-Changes Detection in Thailand using Google Earth Engine and Sentinel-5P Data”

DATA DRIVEN RESEARCH PROJECT

- Proposed Time Series Air Quality Changes Detection Prototype Web Application
- <https://sohelranaccse.users.earthengine.app/view/air-quality-no2-concentration-sentinel-5p>

at Bashundhara R/A, Dhaka 1229, BD

November, 2021 - July, 2023

### “Application of Biomedical Signal Processing, Analysis, and Classification to Identify the Biomarkers of Stroke for Early Prediction and Post-Stroke Recovery”

DATA DRIVEN RESEARCH PROJECT

- Proposed Multiple Machine Learning Algorithms, Graph Neural Networks, Deep Learning Models

at Bashundhara R/A, Dhaka 1229, BD

December, 2022 - May, 2023

## Awards and Achievements Lists

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### Aerial Semantic Segmentation Drone-Detection

DATA DRIVEN AND DEEP LEARNING LEARNING, COMPUTER VISION TASKS

- Notebook Awards Announcement; Bronze Medal

Issued by Kaggle Organization

May, 2023 - May, 2023

### Competition for the Position of Senior ML Engineer

DATA DRIVEN AND DEEP LEARNING LEARNING, MACHINE LEARNING TASKS

- Notebook Awards Announcement; 3rd Place

Issued by Kaggle Organization

July, 2023 - July, 2023

### Fashion Recommendation System-Deep Learning Models

DATA DRIVEN AND DEEP LEARNING LEARNING, COMPUTER VISION TASKS

- Notebook Awards Announcement; Bronze Medal

Issued by Kaggle Organization

August, 2023 - August, 2023

### Car Object Detection - YoloV(x) Models

DATA DRIVEN AND DEEP LEARNING LEARNING, COMPUTER VISION TASKS

- Notebook Awards Announcement; Bronze Medal

Issued by Kaggle Organization

June, 2023 - June, 2023

## Professional References

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=> Nadia Nowshin, Assistant Professor, Faculty of Engineering (FE), Department of Electrical and Electronic Engineering (EEE), American International University-Bangladesh (AIUB).

Contact Email; nowshin@aiub.edu

=> Mohammad Firoz Ahmmed, Officer, Central Information Technology Services (CITS), Department of School of Engineering, Technology and Sciences (SETS), Independent University, Bangladesh (IUB).

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