Name; SOHEL RANA

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Kaggle Profile; https://www.kaggle.com/mrsohelranapro

Portfolio / GitHub Profile; https://github.com/SohelRana-aiub-Pro

Linkedine Profile; https://www.linkedin.com/in/mr-sohel-rana-pro



PROFESSIONAL SUMMARY

Data Driven Machine Learning and AI professional with 4+ years of experience in data science, machine learning, computer vision, deep learning and AI application development. Skilled in developing and evaluating ML models, processing complex datasets, conducting experiments, and integrating AI solutions into practical applications using Matlab, Python, PyTorch, TensorFlow, Scikit-Learn, YOLO, OpenCV, FastAPI, AWS, and Runpod.io.

Strong background in applied AI research, predictive analytics, and real-world machine learning systems including object detection, tracking, NLP, and time-series forecasting, with a focus on model performance, reproducible experimentation, and solving real-world problems through data-driven approaches.

TECHNICAL SKILLS

- **Programming:** Matlab, Python, SQL.
- **Machine Learning:** Scikit-learn, XGBoost, Feature Engineering, Model Evaluation, Statistical Modeling
- **Deep Learning:** PyTorch, TensorFlow, Keras, Transformers
- **Computer Vision:** OpenCV, Image Processing, Object Detection, Image Classification, Segmentation, Transfer Learning
- **AI & NLP:** LLMs, RAG, NLP, Embeddings, Generative AI
- **Data Science:** NumPy, Pandas, Matplotlib, Seaborn, EDA, Statistical Analysis

- **Deployment & Tools:** AWS (EC2), Runpod.io GPU Infrastructure, FastAPI, Streamlit, Git, Linux, Google Colab.

PROFESSIONAL EXPERIENCE

- **Company Name**; ShortCircuit Science Private Company
  Position; 'Junior Machine Learning Engineer'
  Work Type; Full-Time
  Remote job/WFH; London, UK.
  Durations; 14th March,2024 to 30th November, 2024
  Research Areas; Data Science, Computer Vision, Sports Analytics

- **Company Name**; Independent University, Bangladesh(IUB)
  Position; 'Research Engineer'
  Work Type; Full-Time
  Department of School of Engineering,Technology And Sciences(SETS)
  Onsite Job; Bashundhara R/A,Dhaka1229,BD
  Durations; 20th December, 2022 to 31th May, 2023
  Research Areas; Biomedical Signal Processing, Machine Learning, Deep Learning

- **Company Name**; Fab Lab Independent University, Bangladesh(Fab Lab IUB)
  Position; 'Apprentice Student Researcher'
  Work Type; Apprenticeship
  Department of School of Engineering, Technology And Sciences(SETS)
  Onsite Job; Bashundhara R/A,Dhaka1229,BD
  Durations; 1st March, 2019 to 31th October, 2022.
  Research Areas; Machine Learning, Data Science, Computer Vision, Remote Sensing, Natural Language Processing(NLP), Deep Learning

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SELECTED AI/ML PROJECTS

- **Traffic Prediction using Graph Neural Networks (GNNs) | Built spatio-temporal GNN architectures to model network flow and accurately forecast transit time-series data trends.**
- **Real-time Jersey Color Detection using Computer Vision | Engineered a deep learning tracking system utilizing YOLO architectures and OpenCV homography to extract real-time player metadata.**

- **Smart Crop Chatbot using LLMs | Developed an active Retrieval-Augmented Generation (RAG) framework using LangChain, and custom prompt engineering to provide agricultural diagnostic analytics.**
- **Stroke Prediction using ML Models & GNNs | Integrated biomedical signal processing and clinical data arrays with topological graph networks to capture non-linear physiological pathways.**
- **Tomato Leaf Disease Detection (Transfer Learning + LSTM) | Constructed an integrated spatial-temporal network utilizing CNN transfer learning backbones and LSTMs for multi-class plant pathology tracking.**

Educational Backgrounds;

- **Institute Name;** American International University Bangladesh(AIUB)
    - Faculty of Engineering, B.Sc in EEE.
    - CGPA 3.25 out of 4
    - Adress; 408/1, Kuratoli, Khilkhet, Dhaka 1229, Bangladesh
    - Durations; January 2016 to December 2019

Capstone Project / Thesis : On-Body Circular Patch Antenna for Breast Cancer Detection

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Research & Publications;

- **Research Article;** On-Body Circular Patch Antenna for Breast Cancer Detection
  Publisher; IEEE, 2019, Venue; Canada.

Professional Online Short Courses;

- **Institute Name;** Edx Online Platform
    - **Program;** International Monetary Fund (IMFx via edX-2026 & 2027)
    - Financial Market Analysis (Audited)
    - Academic Year; 2026 & 2027

- **Institute Name;** Edx Online Platform
    - SDG Academy(via edX) Program
    - Mining and Materials for Sustainable Development Transformations (Audited)
    - Academic Year; 2026

- **Institute Name;** Edx Online Platform
    - Micromasters in Statics & Data Science
    - Program; MIT'x Micromaster
    - Data Analysis: Statistical Modeling and Computation in Applications
    - Academic Year; 2024

- **Institute Name;** Edx Online Platform
    - Micromasters in Statics & Data Science
    - Program; MIT'x Micromaster
    - Machine Learning with Python Programming language: from Linear Models to Deep Learning
    - Academic year; 2021 & 2022

INTERNATIONAL KAGGLE COMPETITIONS

- **Top 937 / 1,314 – Google ASL Recognition (2023)**
- **Top 404 / 1,867 – Stanford RNA 3D Folding (2026)**
- **Top 110 / 260 – AI for Agriculture (2026)**
- **Top 370 / 2,090 – WiDS Datathon (2026)**
- **Top 442 / 4,142 – Customer Churn Prediction (2026)**
- **Rank 15 / 127 – Stock Pledge Financing Default Prediction (2026)**

Notice Period: 7 / 10 days

LANGUAGES

- **Bengali: Native**
- **English: Professional Working Proficiency**

PROFESSIONAL REFERENCES

- **Professional references available upon request.**