



SYEDA LAMIMA ISLAM

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ABOUT ME

I am a graduating year Computer Science and Engineering student from BRAC University with interest in Computer Vision, Machine Vision, Quantum Computing, Machine Learning, Artificial Intelligence, Data Science and Healthcare Analytics. My academic and hands on experience has included developing software systems, testing machine learning models, implementing computer vision techniques and contemplating the postulates of quantum mechanics and the application of data-driven techniques to solving real-world problems.

EDUCATION

Bachelor of Science in Computer Science and Engineering
BRAC University

year 2022 - Ongoing

Higher Secondary School Certificate

National Ideal College
year 2019 - 2021

Secondary School Certificate

Faizur Rahman Ideal
Institute
year 2009 - 2019

SKILLS

Development Tools

- VS code, Figma, GitHub, Git, Kaggle, Vercel, Matplotlib, Proteus, EMU8086

Data Science, Computer Vision and AI

- Machine Vision, Image Processing, Neural Networks, Quantum Computing, YOLO, RF-DETR, Random Forest, Supervised Learning, Unsupervised Learning, Semi-supervised learning, Logistic Regression.

Research

- PyTorch, TensorFlow, Overleaf

Programming and Web

- Python, HTML, C programming, CSS, JavaScript, FLASK, MERN, Django

LANGUAGE

- Fluent in English
- Fluent in Bangla

RESEARCH EXPERIENCE

Undergraduate Thesis

Publication under processing

Implementation of Deep Learning Algorithms In Machine Vision On An Autonomous Surface Water Rover For Water Waste Detecion.

Peer-reviewed publications and accepted revisions

Accepted with minor revision - Scientific Reports (Nature, Q1)

Attention-Gated DenseNet with Class-Weighted Focal Loss for Multi-Class Cervical Cancer Cell Classification on Pap-Smear Images.

CVIS Research Lab, BRAC University

Undergraduate Researcher

Conducted an in-depth analysis of structured image datasets collected from various regions of Bangladesh and achieved an 84.8% AUC in floating water-waste detection using deep learning and machine learning approaches.

Undergraduate GenEd Field Research Paper

Weaving the Future: Reconciling Cultural Authenticity and Economic Sustainability in Jamdani Production in Bangladesh

PROJECTS

Medicine Dispensing Robot for the Elderly

Developed a home healthcare robot with RFID, fingerprint, and LFR-based user identification, autonomous navigation, medication dispensing, remote video control, and basic speech interaction.

Micro Climate Analyzer

Developed an Arduino-based Micro Climate Analyzer using DHT22, MQ135, and LDR sensors to monitor indoor environmental conditions and detect sudden changes in real time.

PCOS Risk Predictor

This project aims to detect at-risk PCOS patients to support better healthcare service and prioritization for assessment.

Finance Manager in Assembly Language

Developed an Assembly-based Finance Manager with income and expense tracking, transaction history, budget alerts, net income calculation, and financial report generation.

BRACU EventVerse

Developed a centralized event management platform for BRAC University to streamline event discovery, registration, booking, budget management, and participation tracking for students, clubs, and administrators

REFERENCES

Dr. Md. Ashraful Alam

Associate Professor, Department of Computer Science and Engineering
Director of CVIS Research Lab

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