



SOUMIT DAS

[portfolio](#) [github](#) [linkedin](#)

Personal Info

Date of Birth : October 4, 2000

Nationality : Bangladeshi

Language : Bangla & English

IELTS Score : Overall 7.00

Contact Info

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Address

Permanent Address : Nandipara,

Village: Sultanpur, Thana: Raozan,

District: Chattogram

Present Address : 9 Jamal Khan Rd,

Thana: Kotwali, District: Chattogram

Expertise

Programming Language

C, C++, Python, Java, JavaScript, HTML, CSS, x86 Assembly

Technologies

Keras, TensorFlow, FastAPI, MLOps, DVC, Node.js, React.js, MySQL, MongoDB.

Research Fields

Computer Vision, Image Segmentation, Optical Character Recognition (OCR), Image Classification, Machine Learning, Deep Learning.

Problem Solving

Solved 500+ problems and uploaded some solutions to GitHub.

Link : github.com/soumit1803063/problem_solving.

Implemented various AI algorithms using raw Python.

Link : github.com/soumit1803063/AI

Conferences

Daffodil International University & Jahangirnagar University
2nd International Conference on Big Data, IoT and Machine Learning – (BIM 2023)

Dhaka University of Engineering and Technology (DUET)
3rd International Conference on Advancement in Electrical and Electronic Engineering– (ICAEEE 2024)

Education

Bachelor of Science

Computer Science & Engineering

CGPA: 3.55 out of 4.00 Passing Year: 2024

Rajshahi University of Engineering & Technology

Higher Secondary School Certificate

Science

GPA: 5.00 out of 5.00

Passing Year: 2018

Govt. City College, Chattogram

Secondary School Certificate

Science

GPA: 5.00 out of 5.00

Passing Year: 2016

Nasirabad Govt. High School

Projects

Cycle Theft Detection and Surveillance System

Computer Vision | Data Structures | Algorithm

Tools: Python, OpenCV, YoloV8,

DeepSORT, JavaScript, Firebase.

This project monitors cycles in a garage using CCTV cameras. It detects thefts, providing real-time information on the thief, owner, cycle image, and time of theft on a live website.

Parcel Counter

Computer Vision | Object Detection | Reidentification

Tools : OpenCV, YOLOv8, Deep SORT

<https://tinyurl.com/5dx9p2kv>

The project was developed to count parcels on a conveyor belt by detecting and tracking them within a defined region of interest. The system also incorporates an innovative algorithm for reidentification after power outage to ensure accurate parcel counting without duplication.

Virtual Painting

Computer Vision | GUI | Desktop Application

Tools: Python, OpenCV, MediaPipe, Tkinter.

github.com/soumit1803063/Virtualpainting

This project enables painting with hand gestures using a GUI for seamless interaction.

Malware Detection

ML | Feature Engineering | Hyper Parameter Tuning

Tools : Python, Pandas, Numpy, Scikit-Learn.

github.com/1803063soumit/UNSWNB15

This is a machine learning project on malware detection using the UNSW-NB15 dataset. The project aims to develop a robust model for identifying malicious network traffic.

Research & Publications

Advancing Glioma Segmentation: A Robust 3D Residual Attention U-Net Framework for Multimodal MRI Images

Thesis | ICCA 2024 | ACM | Accepted and yet to be published

2023 - 2024

This research presents a robust 3D Residual Attention U-Net for segmenting subregions of brain tumors in multimodal MRI images, achieving higher accuracy with less training time and resources. A part of the work (only whole tumor segmentation) has been submitted and accepted for presentation to a reputed conference.

BanglaOngko: A New Dataset for Accurate Bengali Mathematical Expression Detection Utilizing YOLOv8 Architecture

Taylor and Francis | BIM2023 | Accepted and yet to be published

2023

In this research, handwritten Bengali mathematical expressions were converted to printed text. YOLOv8 was utilized to identify the positions of digits and operators. Subsequently, a novel algorithm based on statistical concepts was developed to generate the final printed version of the expressions.

CBAM Enhanced Collaborative Network for Binary Classification of Breast Tumours

IEEE | ICAEEE2024 | DOI : 10.1109/ICAEEE62219.2024.10561843

2024

This research aims to classify breast tumors as benign or malignant using a neural network with two distinct paths: a collaborative path and a transfer learning path. The network incorporates a Convolutional Block Attention Module (CBAM) to improve performance. By leveraging these advanced deep learning techniques, the proposed model achieves superior accuracy in tumor classification compared to state-of-the-art models.

Reference

Professor Dr. Md. Ali Hossain

Professor

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