# Md. Mahadi Hasan

B.Sc. (Engr.) in CSE

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### Links

in www.linkedin.com/in/mahadi-hasann

github.com/Root007x

https://leetcode.com/u/mahadirootx/

## Summary

Passionate computer science student developing learning and deep learning. skills in machine Currently working with tools such as TensorFlow, PyTorch, and scikit-learn and looking forward to hands-on machine learning or deep applying learning skills to projects. Very interested in learning more about and contributing to impactful AI solutions.

# Personal Information

Date of Birth: 6 June, 2000 **Religion: Islam** Blood Group: O+ Nationality: Bangladeshi

# Education

B.Sc. (Engr.), CSE Primeasia University Current CGPA: 3.95

**Higher Secondary Certificate**, 2019

Dhaka Imperial College

#### Secondary School Certificate, 2017

Banani Bidyaniketan School and College

## **Programming Languages**

C/C++, Java, Python, Javascript

#### Hardware

Arduino uno, Nano, Micro, Soldering, **Computer Assembly** 

Skills

#### **Softwares**

IDE's (code blocks, visual studio code, pycharm, google colab, jupyter notebook, arduino IDE), Figma, Office, Illustrator, Photoshop, Git, Github

#### Machine Learning/ Deep Learning

Tensorflow, Pytorch, Scikit-learn, Pandas, Numpy, Matplotlib, Yolo, Streamlit, Langchain (basic)

#### **OS Practices**

Windows, Linux (Ubuntu, Kali Linux)

# Languages

English Bangla

## **Software Projects**

- CNN-Powered Insights into Rice Varieties and Leaf Disease Detection: Conducted research on "CNN-Powered Insights into Rice Varieties and Leaf Disease Detection," developing a CNN and transfer learning-based framework for automated classification and disease detection. Evaluated 15 deep learning models, with EfficientNetB0 achieving the best performance. The work enhances agricultural automation and supports sustainable farming through AI-driven crop monitoring. Link: github.com/Root007x/Rice\_App
- Worker Helmet Detection Using YOLO Model: Constructed a helmet detection system utilizing the yolo model, resulting in precise detection in images, thereby improving workplace safety compliance. Trained on a dataset specifically created for the purpose of recognizing safety helmets in different situations.

Link : huggingface.co/spaces/root007x/Worker\_Helmet\_Detection

 Dragon Fruit Maturity Classifier Using Transfer Learning: Developed a classifier to determine if a dragon fruit is mature or immature in images, using transfer learning with PyTorch. Leveraged a pre-trained model to achieve high accuracy on a custom dataset, effectively distinguishing between maturity stages in various conditions.

Link : <u>huggingface.co/spaces/root007x/dragon\_fruit\_maturity\_classification</u>

An Interface to collect all your photos at one go, using face detection Al technology: This
project develops an automated image organization system using facial recognition technology to
streamline photo retrieval. By leveraging Python, OpenCV, and face recognition libraries, it
matches user-provided photos with a large image repository, segregating and emailing relevant
images.

Link : github.com/Root007x/photofi?tab=readme-ov-file

## **Hardware Projects**

- Medication Time Alarm System : Developed an Arduino-based alarm system integrated with home automation to ensure timely medication reminders for patients and elderly individuals. Link : github.com/Root007x/Medication-Time-Alarm-System
- Gesture Control Car: Designed and implemented a hand-gesture-controlled robotic car using Arduino Uno as the central controller, MPU6050 (6-axis accelerometer/gyroscope) for precise motion tracking, and nRF24L01 transceiver modules for low-power, 2.4GHz wireless communication between the transmitter (glove-mounted sensor) and receiver (car). Link: github.com/Root007x/Gesture-Control
- Line Following Robot: Designed and built an autonomous line-following robot using IR sensors (TCRT5000) for precise path detection and Arduino microcontroller for real-time motor control Link: github.com/Root007x/Basic-LFR

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