RAMAN
MILAN

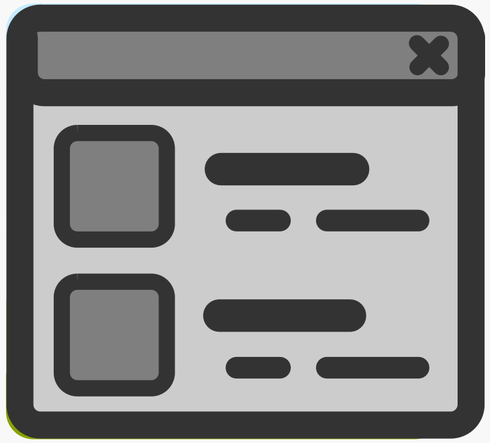
TRAFFIC LIGHTS

AND THEIR REAL-TIME DETECTION USING MACHINE LEARNING

INTRODUCTION

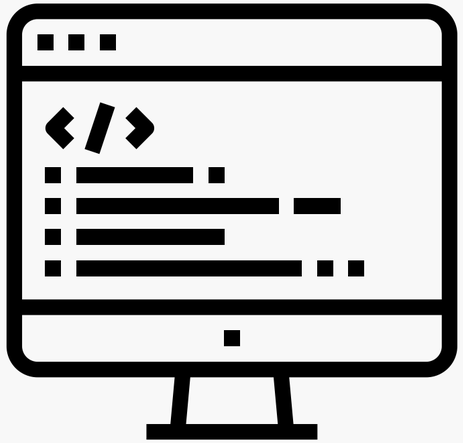
WE, THE STUDENTS OF RAMAN BLOCK, MADE TRAFFIC LIGHT DETECTOR WHICH DETECTS TRAFFIC LIGHT POSITION AND ALSO ITS COLOUR LEVERAGING ML TECHNIQUES

OUR DELIVERABLES



FRONTEND

A simple frontend framework for deploying the model that can be made available online, which would not only help others in their research but also contribute towards expanding our dataset



BACKEND

The backend code at the heart of this project, which allows us to take as input both videos and images, and identify all of the traffic lights and their displayed readings to the user.

ML MODEL

Used YOLO model for traffic light detection which we fine tuned using different dataset available online.

WEB DEV

Used Flask as a backend to integrate the fine tuned YOLO model with frontend so that users can easily interact with the website to use the model.

it’s compatible for both image and video.

DEMONSTRATION

https://github.com/himanshukumargupta11012/Tihan-Hackathon