DON'T SLEEP

Drowsiness Detector

TEAM 27
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Introduction

- **Problem**: Every year about 100,000 police-reported, drowsy-driving crashes result in nearly 800 fatalities and about 50,000 injuries.

- **Solution**: A tool to detect if the driver has slept and send an SOS message to immediate family member with the coordinates and location name (using Twilio API).

Initial Version

- **What it involved?**: Use opencv to open the webcam

- **Advantages**: Processing was really fast.

- **Disadvantage**: Cannot be used to deploy as the django app runs on server

- **Solution**: Shift the frame-fetching part to client side, that is, do it using javascript.
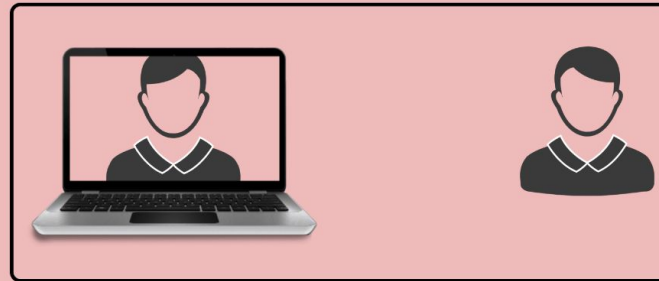
Final Version

- **What it involved?**: Use javascript to fetch a frame and send it to server.

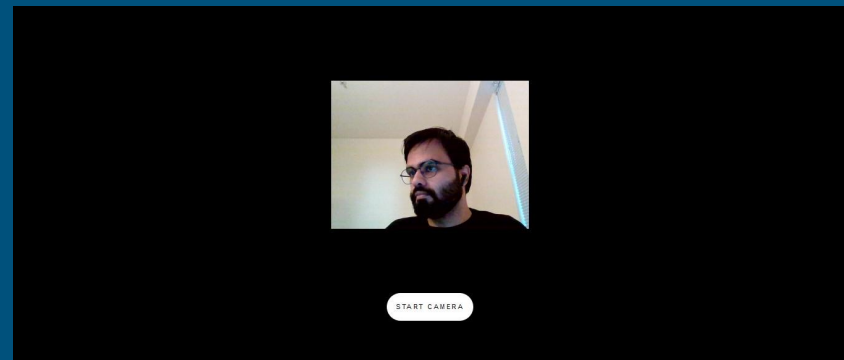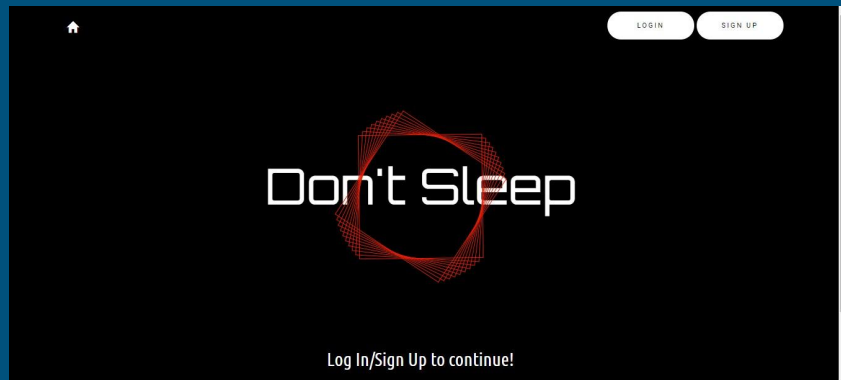- **Advantages**: The app can be deployed now (Deployed on Heroku).

Server Side

Image data in base64 format

Status codes

Client Side

How it looks?

References

- https://www.nsc.org/road/safety-topics/fatigued-driver

- https://www.twilio.com/docs/usage/api

- https://pypi.org/project/opencv-python/

- https://developer.mozilla.org/en-US/docs/Web/API/Geolocation_API

THANK YOU!