

## Driver Drowsiness Detection System

**Objective:** Build a system that detects whether a person is drowsy while driving and if so, alert him by using voice messages in real time. The system streams real time using web cam, and phone cam.

**Dataset:** The data consists of four training, and testing set [closed-open eyes, no-yawn-yawn]. The size of data 175.84 MB. <https://www.kaggle.com/serenaraju/yawn-eye-dataset-new> we plan to modify the dataset by adding feature engineering that will train the model on different positions and background.

**Tools:** The model we used is built with Keras using Convolutional Neural Networks.

- Anaconda Environment
- OpenCV Face Eye Detection
- Keras – To build Classification Model
- Tensorflow-Keras uses TensorFlow as Backend
- Pygame-to play alarm sound

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