Detecting Driver Drowsiness and Buzzer Alert using CNN Algorithm

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Abstract: *At present, driver fatigue has emerged as a predominant root cause of vehicular accidents on the roads. The phenomenon of drowsiness occurring while driving, particularly during twilight hours, can pose a significant risk to road safety, potentially leading to unforeseen collisions resulting in grave injuries or fatalities. The insufficiency of sleep negatively impacts an individual's capacity to carry out tasks efficiently, thereby resulting in prolonged reaction durations, weakened memory, and impaired decision-making abilities. This augmentation accentuates the likelihood of inflicting harm upon fellow riders and pedestrians on the thoroughfare. In response to the aforementioned difficulty, our proposed resolution leverages a Deep Learning methodology employing a convolutional neural network (CNN) framework, with a focus on treating the detection of drowsiness as an object recognition undertaking aimed at discerning and pinpointing the occurrence of opened and closed eyelids. The object detection process in our proposed methodology utilizes the Inception V3 convolutional neural network architecture.*

Keywords: Detecting Driver Drowsiness

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