Autonomous road accident reporter using Image Recognition and machine learning

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Abstract

Every day, car crashes result in a significant number of fatalities and injuries, with a majority of these resulting from delayed care and supplementary accidents such as wrong post care given by unexperienced personals. An Automatic vehicle accident detection system will, to some degree, reduce the time it takes for rescue services and vehicles to respond to incidents, improving rescue efficiency and traffic safety.(Tian et al., 2019) The Prevention of death or serious injury from major road accidents is an aim of the governments all over the world. The availability of timely assistance to accident victims is a critical condition for reducing the effects of vehicular accidents. In order to save human lives, it is essential to devise effective warning and response mechanisms. According to numerous figures, the number of traffic incidents is rising every year. According to the World Health Organization's (WHO) Road Traffic Facts, 1.24 million people involve in serious injuries or death every year as a result of traffic accidents.(Road traffic injuries) According to figures, 50% of global crashes result in fatalities, with middle-income countries accounting for 80% of global traffic deaths. This documentation is based on how an automated vehicle accident detection system which automatically sends the first responders about the accident. This prototype is mainly developed in order to reduce the delay time of the responding units that takes to arrive at the accident location. The prototype will first be fed a video where it detects when an accident occurs, it detects for its serverity and will only take which has a serverity higher than 50 % to inform the first responders.