Deep Learning Based Pothole Detection

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Abstract:

Potholes are formed due to wear and tear and weathering of roads. They cause not only discomfort to citizens but also deaths due to vehicle accidents. In many developing countries and developed countries, the main problem is road deterioration. In the US nearly 2000 accidents were recorded due to potholes and road damage. The main aim of this project is to decrease the road accidents happening daily around the world. Many people while driving a car cannot see some of the potholes on the road and if they do not slow down their vehicles, there is a chance of an accident or vehicle damage. Therefore to decrease this kind of accident we came up with a project which recognizes potholes on the roads and alerts the driver by making a beep sound. To accomplish this objective we used the Yolo algorithm for pothole detection which uses neural networks. If the cameras can be installed on moving vehicles, then the potholes can be detected in real-time and avoided by alerting the driver.

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