

Predicting the possibility of getting into a car accident and the severity of the accident

1. Introduction

1.1. Background

In 2018, the United States had roughly 276 million vehicles in operation.¹ Out of those vehicles, 12 million were involved in crashes.² The United States is also among the countries with the highest rate of traffic-related fatalities per one million population.³

1.2. Problem

A lot of these accidents could be prevented if the drivers were informed about the possible involvement in a car accident in advance. The focus of this project therefore is to predict the possibility of a vehicle getting into a car accident and the severity of the accident, using data on weather and road conditions.

1.3. Interest

Reliable prediction of possible car accidents can help commuters to drive with more foresight or change their travel plans accordingly. In addition, an accident prediction system can be interesting for insurance companies in order to prevent possible costs for accidents suffered by their members.

¹ <https://www.statista.com/statistics/859950/vehicles-in-operation-by-quarter-united-states/>, accessed on September 25, 2020.

² <https://www.statista.com/statistics/192097/number-of-vehicles-involved-in-traffic-crashes-in-the-us/>, accessed on September 25, 2020.

³ <https://www.statista.com/statistics/485456/road-fatalities-by-country/>, accessed on September 25, 2020.