Predicting the severity of an accident — IBM Applied Data Science Capstone

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1 Introduction

1.1 Background

According to the World Health Organization approximately 1.35 million people die each year as a result of road traffic crashes, and it costs most countries 3% of their gross domestic product. Traffic accidents cause economic losses to people and their families, and not only material losses because in the event of death or injuries, they affect several other aspects of the community. Starting from the premise that traffic accidents can be prevented, it is imperative to know the main factors that can cause an accident in order to develop strategies for the government or some organizations to act.
We will analyze a data set consisting on all type of collisions from 2004 to late 2020 in Seattle, provided by SPD and recorded by Traffic Records. By applying some machine learning techniques, we will predict the possible outcome of a traffic accident in terms of fatality.

1.2 Problem

In Seattle, as it is for most cities in the world, it is necessary to implement initiatives to reduce the rates and severity of traffic accidents, so this project aims to predict whether the outcome of an incident is fatal or not based on available data.

1.3 Interest

Drivers, pedestrians, cyclists could benefit from the results of the prediction, because they could act under certain conditions that are very likely to cause an accident.
Government, traffic departments, police who need to take steps to create safe roads, build safer infrastructure, improve post-accident care for victims and raise awareness.