Predicting Car Accident Severity

IBM Capstone Project
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1. Introduction

1.1. Problem

The road accident not only interferes with traffic, but also leads to personal injury. It is important to prevent road accidents because serious accidents as well as minor accidents can kill people. With the development of technology, it is possible to predict the fatality of an accident by considering various factors such as weather and road conditions using machine learning technologies, so that the advancement of technology can contribute to preventing/predicting accidents. Furthermore, which of these factors has a greater influence on road accidents can be identified.

1.2. Interest

Not only the government but also the general public can make their lives more prosperous by being provided with information related to traffic safety. In bad circumstances, the government can control traffic or warn drivers. Drivers can reschedule their trip or be aware of poor traffic conditions and pay more attention to driving.

2. Dataset

The dataset to be used for this project is open data released by the Seattle Government, and contains all types of collisions data from 2004 to the present with 194,673 rows and 37 columns. All attributes are not considered, and only useful attributes will be used. This dataset contains data such as the severity of the collision based on the fatality and disabling injury counts, as well as how many people were injured in the accident. In addition, weather, road and light conditions are also recorded.