Predicting the Severity of Accidents

September 2020

Data Science Capstone Project

1.Introduction

1.1 Background

In and around big cities with many inhabitants and many commuters such as Seattle, accidents happen year-round. Sometimes accidents are severe and roads are blocked completely to rescue the injured, but even accidents with only propriety damage can cause traffic jams. It would be beneficial to have some warning beforehand so some areas could be bypassed.

1.2 Problem

This study aims to investigate whether the severity of an accident can be predicted on the basis of historical data including location, weather condition, light condition, road condition and others using supervised machine leaning.

1.3. Interest

Possible interested parties for the data can be local rescue stations, which can plan the rescue forces for example on the basis of local and weather forecasts. Better planning can both reduce costs and save lives by having the right resources readily available.
Another interested party could be radio stations, which can offer their listeners a forecast, either on traffic radio or on an online platform. This may increase the radio stations' income generated by advertisements due more listeners or clicks on a platform. Insurances can also have an interest in the data because they may be able to forecast costs based on the expected severity of an accident.