

Data Science Capstone Project

Introduction

The road transportation provides fast means of transportation. However, it is also subjected to the various kind of accidents. There are many factors and sources of an accident. Data on accident can provide the insights into these factors and sources and can help building better infrastructure or planning travelling schedule based on situational conditions.

The report would focus on infrastructural factors into accidents and help better infrastructure building and retrofitting of existing infrastructure along with keeping in mind the environmental & situational factors. Safety feature embedded on the time of building infrastructure have potential to reduce number of accidents and decreasing the severity of accidents. This report would help the architects and builder of road infrastructure to build safe road.

Data understanding

For the analysis, data should have infrastructural, environmental and situation factors for an accident.

- I. Infrastructural factors would include type of junctions and type of turn. For example, existence of blind turn may increase the probability of accidents.
- II. Environmental factors include raining and lighting condition at the time of accident. For example, heavy rainfall may increase the probability of accidents, specially, if the road has slope and it is slippery.
- III. Situational factors involve factors like vehicle types and drivers' condition. For example, speedy and driver under influence of drug or alcohol have high probability of meeting an accident.