

## **I. Business Problem**

Road traffic accidents are a leading cause of death in young people in the United States [1] [2]. The average number of car accidents in the U.S. is 6 million car accidents every year, and about 6% of those accidents result in at least one death. 3 million people are injured as a result of car accidents and around 2 million drivers experience permanent injuries every year [3].

Analyzing historical vehicle crash data can help us understand the most common factors, including weather and road conditions, locality, and lighting among others, and their correlation with accident severity. This information can be used to create a prediction model that can be used in conjunction with other Apps like Google Maps to predict the severity of an accident to help drivers be more alert to what can commonly lead to a severe accident. For this project, I used the data from the City of Seattle's Police Department for the years 2004 until present.

## **References**

1. Road Traffic Injuries and Deaths—A Global Problem. CDC, Center for Disease Control and Prevention, <https://www.cdc.gov/injury/features/global-road-safety/index.html#:~:text=Road%20traffic%20crashes%20are%20a,citizens%20residing%20or%20traveling%20abroad>.
2. Road Traffic Injuries. WHO, Global Health Observation Data, [https://www.who.int/health-topics/road-safety#tab=tab\\_1](https://www.who.int/health-topics/road-safety#tab=tab_1)
3. Car Accident Statistics in the U.S. Driver Knowledge, <https://www.driverknowledge.com/car-accident-statistics/#:~:text=U.S.%20every%20year%20is%206,experience%20permanent%20injuries%20every%20year>