

Introduction

Car accidents are a leading cause of injuries. Over 5.6 million car accidents were reported in the United States in 2012. Of these, over 30,000 were fatal, and another 1.6 million involved other injuries. The damage they leave behind can be immense. The economic cost of car accidents is estimated to be \$277 billion each year, or around \$897 for every person living in the United States. While car accident injuries can vary from person to person and from crash to crash. However, if we can build a model to predict the severity of a car accident, that would avoid a lot of unnecessary accidents and injuries, even deaths. Therefore, the Seattle government is planning to use this model that alert drivers, health systems, and police to remind them to pay more attention to critical situations.

Imagine a scenario that if there is a rainy day and you are planning to drive to another city. The model can predict the severity of the accident severity based on the condition of traffic, report the accident location, weather conditions, and other factors that provide you more options for traveling, reschedule, or drive more carefully. However, distraction and not paying enough attention while driving are important reasons that cause car accidents. This model will alert drivers driving more carefully and also can be prevented by enacting harsher regulations.

The target audience of this project is the Seattle government, police, rescue groups, and drivers. This model and its prediction will provide advice for decision making and prevent unnecessary accidents and injuries for the city of Seattle.