CAPSTONE PROJECT – CAR ACCIDENT SEVERITY

1 Introduction

Seattle Department of Transportation (SDOT) is on a mission to deliver a transportation system that provides safe and affordable access to places and opportunities. The council's goal is to create safe transportation environments and eliminate serious and fatal crashes in Seattle.

1.1 Background

Say you are driving to another city for work or to visit some friends. It is rainy and windy, and on the way, you come across a strenuous traffic jam on your side of the highway. Long lines of cars barely moving. Imagine the highway is shut down. It's is an accident and rescue workers are busy transporting the ones involved in the crash to the nearest hospital. They must be in critical condition for all of this to be happening.

1.2 The need

Making sure people can get around our growing city safely is the council's top priority. SDOT collects data of every accident happening in the city and it has preserved data since 2002 in structured manner. It looks for analysing this huge data and draw out meaningful forecasts about the causes and impacts of fatal accidents.

1.3 The Problem

Now, wouldn't it be great if there is something in place that could warn you, given the weather and the road conditions about the possibility of you getting into a car accident and how severe it could be, so that you would drive more carefully or even change your travel if you are able to.
Well, this is exactly what we want to accomplish under this case study titled 'Capstone Project – Car accident severity', which would help predict the severity of an accident.

1.4 Audience and stakeholders

The severity impact prediction model (which is scope of this project) could be published as a REST web service (future scope of work) for the Seattle Department of Transportation (SDOT). The SDOT may have options either to own or to subscribe to this service. By inputting necessary data to the service it could receive predictions regarding severity of accidents. This would help SDOT formulate traffic routing decisions or alerts in the geography under its monitoring.

Daily commuters and road travellers would find it absolutely beneficial to know about live traffic information, traffic diversion alerts and notifications when they tune with the SDOT broadcast channels. It would help save everyone's precious time, hectic travels and help avert mishaps or accidents due to such forewarnings.

We aim to design the model for a reliable accuracy of its prediction.

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In fact the project foresees very high potential and ambitious goals to offer such services of human safety to most of the city councils across United States and across continents globally.

Thank You!