Project Proposal
SJSU - CMPE 255
Professor Carlos Rojas

Team Members

Amir Radman - amirhossein.radman@sjsu.edu
Raymond Hong - raymond.hong01@sjsu.edu
Amrita Kasaundhan - amrita.kasaundhan@sjsu.edu
Sum Mohan Reddy Mallannagari - summohanreddy.mallannagari@sjsu.edu

- **Project title**

  Countrywide Traffic Accident Analysis

- **Description of the problem you'll solve or the question you'll investigate**

In automobile accidents, there are many factors that can contribute to a crash. Factors such as weather, obstacles, and time of day can have more of an impact than others. The problem is to identify these various factors, and determine which of them (one or more) have an increased likelihood of causing a car accident. It will also be beneficial to determine the relationship that each of these factors have together, for example, do stop signs have a positive impact of preventing a crash in the rain versus not in the rain? These types of combinations are what we will strive to find out.

- **What data you'll use and where you'll get it?**

A Countrywide Traffic Accident Dataset(2016 - 2019)

https://www.kaggle.com/sobhanmoosavi/us-accidents

- **What algorithms do you plan to use? How are they related to the class?**

This problem (A Countrywide Traffic Accident Dataset(2016 - 2019))can be solved as both regression and classification. We will be following a linear regression approach to solve this. We will extend our research to linear classification if time allows. Hence, we are considering Random forest, Linear Regression , and Logistic Regression. However, we are still exploring more about ML algorithms that can be applied in order to get more accurate results.

Backup datasets:

1 - San Francisco City Employee Salary Data

https://www.kaggle.com/kaggle/sf-salaries

2 - Federal Reserve's time serie of foreign exchange rates per dollar
https://www.kaggle.com/brunotly/foreign-exchange-rates-per-dollar-20002019