**PROJECT TITLE**

Prediction of Accident Fatality using Machine Learning

**TEAM MEMBERS**

Jaehong Kwon

XiongFei (Frank) Shi

Feng Wang

Olive Sun

Neha Nayeem

**PROJECT DESCRIPTION**

Use historical KSI (Killed or Seriously Injured) data from Toronto Police Open Data to predict fatality of accidents given a certain input (day/time/weather condition/etc.).

This information could be used to possibly prevent accidents by encouraging drivers to drive more carefully in a particular area.

**DATASETS/SOURCES**

1. Toronto Police Open Data: https://data.torontopolice.on.ca/pages/open-data
2. Toronto GeoJson: <https://github.com/jasonicarter/toronto-geojson>

**PROJECT STEPS**

1. Extract: data collected in CSV format from the Toronto Police Open Data website
2. Transform: Clean and prepare data
3. Load: Load into Mongodb (?)
4. Machine Learning algorithms:
   1. SVM
   2. Random Forest
   3. Logistic Regression
5. Deployment: create visualizations and deploy our prediction to a website using Heroku and the following tools:
   1. Python Pandas
   2. Tableau
   3. HTML/CSS/Bootstrap
   4. Javascript Leaflet