**Introduction**

Road traffic accidents are common safety problem around the world. This automotive accidents result in over result in over 30,000 fatalities in the United States annually. Road traffic accidents are estimated to cost the US economy approximately $810bn per. Identifying the factors which influence accident severity is therefore of paramount importance.

In an effort to reduce the frequency of car collisions in our community, this project will leverage existing accident data to predict the different accidents' severity given the current weather, road and visibility conditions. When conditions are bad, this model will alert drivers to remind them to be more careful.I will use different supervised machine learning algorithms and select the machine learning model that gives the highest prediction accuracy.

The study of building this kind of model will be of significance to a lot of stakeholders and beneficiaries: (1) town/city planners, who may be able to use the model to inform their road planning and traffic calming strategies; (2) emergency service responders, who may be able to use the model to predict the severity of an accident based on information that’s provided at the time the accident is reported in order to optimally allocate resources across the city, and (3) traffic police officers.