

## **Introduction & Business Problem**

Traffic accidents have been, and will continue to be, a problem plaguing society for the foreseeable future. With the world population expected to keep growing, we would expect there to be an increase in cars on the road, which will not be balanced equally by an increase in roadways. To follow that, we expect the numbers of accidents to also increase. However, with enough data, it may be possible to identify factors that increase the likelihood of accidents, and measures can be taken to prevent that. In some cases, measures may be infrastructure upgrades (signage, lighting, street bumps, speed limits, etc.), or they may be campaigns to spread awareness and change human behavior. With self-driving cars starting to become a reality in the upcoming decades, action must be taken now to create safe and reliable roadways. Government transportation departments need actionable data-driven recommendations to improve roadway conditions and reduce accidents and fatalities. Accident prevention will result in many positives for communities, such as less traffic, fewer emissions, improved public transportation reliability, and most importantly, safety. Information and conclusions drawn from this data will help with future urban planning and design, as well as traffic control, and can even be of benefit to car insurance related issues.