

## Accident Analysis in the "Hauts-de-Seine" department

RAMEIX Philippe | Coursera Applied Data Science Capstone | 05/06/2020

## Introduction

In high density urban area, doing his daily commute is a real puzzle. People spend a lot of time in public transport or traffic jam. Many residents are looking for alternative mobility to save time or for ecological considerations, but the risk of accident is major factor restraining the adoption of new means of locomotion.

So, Road safety is a matter of concern for this kind of people or for every parent concerned for the safety of their child.

The aim of this project is to analyse road accidents in the "Hauts de Seine" department (in France, in the Paris agglomeration) in order to provide to the resident an overview of:

- the evolution of accident statistics for the last years
- where are located the places with the more accident
- what are the accident categories

This analysis can give some metrics highlight where road security should be enhanced.

## **DATA COLLECTION**

This project is based on the analysis of the <u>open data</u> provided by the "Hauts de Seine". This file contains information about all accident resulting in death or injury in the department from 2006 to 2017.

This data will be used to visualize globally and town by town the evolution of the number of accidents during this period. A map of the "Hauts de Seine" will be generated to localize each crash.

After some pre-processing treatment, some clustering operation will be realized in order to find the most common categories of the accident and point the common specificity of each group.

Finally, additional data provided by Foursquare will give more information about some specific localization, we will try to find some common characteristics for places with the same accident statistics.