

## *Data Analysis Write Up NYC Hate Crimes*

I conducted a thorough exploratory data analysis on “New York City Hate Crimes” using a data set provided from New York City open data. Throughout the past two years there have been an increase reporting on the news and social media regarding hate crimes targeted to various groups regarding their sexual gender and race. One of my main goals is to see if there was an increase or decrease in hate crimes within the past three years.

But before I was able to drive deep into the dataset, I first had to see if there were any values, columns and rows with missing or misspelled information. I was surprised how many items in the Offense Description and County columns needed to be changed (mainly for readability and better understanding). In order to properly fix these values I had to use the `replace()` method which returns a copy of all occurrences of a substring after being replaced with another substring. We talked about this method in class but this was the first time I personally ever implemented it. I was surprised at how useful this method was in regards to data cleaning. There were 2 additional methods that were life savers mainly when it came down to charting my analysis. These methods were `value_counts()` and `sort_values()`. Value count Return a Series containing counts of unique values and sorts a data frame in ascending or descending order of passed column.

Going into this project my hypothesis was there was a decrease in hate crimes committed in 2020 but began to increase in 2021. My hypothesis was correct but I was surprised to see that hate crimes complaints filed increased by 281 in just a year. These could be many factors in why hate crimes were considerably lower in 2020 for example the covid19 pandemic but we can not thoroughly prove this idea while using this dataset. While diving into the data and performing my data analysis I learn a lot of interesting factors. For example, the majority of the offenses committed between 2019 - 2021 were criminal mischief but in regards to the asian americans and african americans who filed the most hate crime complaints in 2020 and 2021 the offense were mainly felony assault.