**TITTLE**

Understanding, examining and analyzing the arrests data in New York City for the year 2019. Which were the highest level of Crimes committed that warranted an arrest? Was it Felonies, Misdemeanors or Violations? Which Ethnic group was more likely to be arrested, and which Borough might be the safest.

A picture containing person, building, outdoor, street

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**ABSTRACT**

Since we all Reside in New York City which happens to be ranked # 25 for most violent crimes in the United States of America, we decided that it would be imperative in the name of safety to use our knowledge as aspiring Data Scientist to delve into the data to see what can be unearth in trying to understand the who’s, how’s and why.

After normalizing the data to ensure that there were no biases or disparity between the proportions of race in conjunction with the Boroughs, we found that 47.86 % of Blacks were arrested, followed by 25% white Hispanics during the year 2019 . The borough of Brooklyn saw 27.25 % arrests, the highest numbers, with Manhattan following closely with 25 %, and the Bronx respectively with 23%. From the analysis Staten Island had the least amount of arrests, a mere 5%, which makes it by far the safest borough during the year 2019.

Assaults and related offenses were the most frequently occurring level of offense, with the Bronx having the highest number of arrests, followed by Manhattan and Brooklyn. There were by far more Misdemeanors, 59.41%, followed by felonies 39.07%, then violations with 1.32%. Data Analysis shows that we have more arrests in January, with the worst single day in terms of number of arrests happening on May 2nd, 2019, with 877 arrests. Looking at weather.com data on that day, it shows that it was 77 degrees Fahrenheit and cloudy, but a beautiful day overall compared to the previous days with 60, 59, and 55 degrees Fahrenheit respectively.

Machine learning algorithms was used to predict which level of crime (misdemeanor, felony, violations) is more likely to occurring during the first quarter of the year, which analysis shows that we have a higher rate of arrests.