



Analytics: Prin & Appl Project

Making NYC parks safer

Team Members:

JingJing, Neeraj, Peyush, Poonam, Rojin



Contents

- Problem we are trying to solve
- Data Sources
- Work Plan
- Algorithms/techniques/models used
- How will we evaluate our work?
- What we intend to accomplish by the end of the project



Problem we are trying to solve

- Recent study on Crimes in NYC parks showed a very startling problem. Violent crime jumped 23 percent from June 2015 through March 2016, compared to the same nine-month period last year.
- Cases of rape increased 40 percent, felony assaults jumped 34 percent and robberies spiked 15 percent. Murders were up 200 percent, from two to six. In total, 417 people reported being the victims of violent crimes compared to 340 in the prior nine months.
- Through this study we are intending to build a model which can be used to prevent crimes from taking place in the parks by identifying parks which are prone to crime and recommending the police department to man the parks accordingly.




Data Sources

- We are using the publicly available data sources available for use of general public.

Specifically:

Open Data:

- <https://data.cityofnewyork.us/Public-Safety/NYC-Park-Crime-Data/ezds-sqp6>
- <http://www1.nyc.gov/site/nypd/stats/crime-statistics/park-crime-stats.page>
- <https://catalog.data.gov/dataset/nyc-park-crime-data>
- And other data sources available to us.



Work Plan, Algorithms/techniques/models

- We intend to perform extensive analysis on the data available to us including but not limited to
- Descriptive statistics
- Anova Analysis
- Multiple regression models
- Logistical regression models
- And other tools and techniques which we learn in the course.



How will we evaluate our work?

- We intend to divide the data into two parts
- Part 1 - for building the model and
- Part 2 – for testing the effectiveness of the model.
- By doing the testing based on real data we would be able to evaluate the prescriptive effectiveness and predictability of the model we build. We are aiming for over 95% or more predictability.
- We will also seek feedback from subject matter experts and resources available to us through the university.



What we intend to accomplish by the end of the project

- We selected this project based on the social impact of the problem we are faced with. By making our parks and shared spaces safer we can build safer and secure communities.
- We want to apply the tools and techniques we learn at this course to improve the quality of life of communities around us.
- We intend to build a model which can take inputs of a park (like Borough, Size and Category) and give the expected crime in that location as the output at 95% accuracy. This information can be utilized by law enforcement and general public to prevent such crimes from occurring.



Thank You