**Weather Patterns and Crime in NYC**

**ABSTRACT**

The project aims to analyze the correlations between weather patterns and the crime rates in NYC. We want to understand how weather affects different types of crimes and the application is aimed at the NYPD and other similar police departments to help them manage crime better, and normal people can use our application to see if the place he will go through at that time is safe enough and if he should go outside now.

**1. INTRODUCTION**

People's moods always change with the weather. For example, in the rainy winter, people are more likely to be depressed and unhappy, and in the sunny spring, people will be more vibrant. Emotions often dominate people's behavior. When a person shows negative emotions, he will be more likely to make impulses, hurt others, and even commit crimes. Therefore, we believe that there is relationship between weather and crime rate.

Based on this relationship, we can help the police department solve some practical problems. There are 686665 law enforcement officer in United States in 2018[1], it is a huge number. When you drive, or walk outside, you can often see police officers in many places, and their presence does not indicate that this area is very unsafe now, but the police are assigned to this area, and Shifts need to be constantly guarding this area. No matter what day it is, the number of police officers in each area will not change much every day.

In many cases, the police simply park the police car there, and then should wait constantly to see if there is a crime. Maybe today is a day when the crime rate is high, the police will be in short supply, and sometimes, today is a day when the crime rate is low, the police will do nothing, this is a very inefficient behavior.

When we found out the relationship between the weather and the crime rate, everything was solved. Through the continuous accumulation and analysis of historical data, we can analyze whether the current period of time in this area is the time of high crimes through the current weather conditions in this area. When it is analyzed that the crime rate is high, the police station can deploy in advance to release more police force, and when it is analyzed that the crime rate is low in this period today, the police station can arrange fewer police officers to patrol outside. Even passers-by can analyze to determine whether it is a suitable time to go out.

**2. DATA**

New York City is the most prosperous city in the United States and even the world.

**3. ANALYSIS**

**4.CONCLUSION**

**5. reference**

**[1]https://www.statista.com/statistics/191694/number-of-law-enforcement-officers-in-the-us/**