CSE II YEAR SEPM PROJECT

CRIME DETECTION USING DATA MINING AND MACHINE LEARNING

ONE-PAGE BUSINESS CASE

Title : Crime Detection Project using Data Mining

The Project :

- In this project, we are determining patterns of crime as well as intending to forecast, predict and thus detect the occurrence of crime in the future.

History :

- As crime rates keep spiraling each day, new challenges are faced by law enforcement agencies.
- They have to keep their forces on the lookout for any signs of criminal activity. This may only cause more burden on their resources.
- The law enforcement agencies should therefore be able to predict such increases or decreases or trends in crime.

Approach :

- Our system proposes to mine Crime Records and thus run appropriate algorithms on such data.

- This predicted output could also be presented to the user in the form of clusters using a data visualization algorithm like K-means clustering algorithm.

Limitations :

- Dataset may be too small i.e., not enough information to get an accurate plotting or being able to apply ML algorithms.
- Dataset may not be clean i.e., has missing values, values in wrong columns, etc.

Benefits :

- Easier to find Crime Hotspots – likely areas where criminals appear.
- Better way to check reduction of crime using Regression Line plotting.
- Simpler and faster crime analysis

PROBLEM STATEMENT

- Although we cannot predict who all may be the victims of crime but can predict the place that has probability for its occurrence.

- The predicted results cannot be assured of 100% accuracy but the results shows that our application helps in reducing crime rate to a certain extent by providing security in crime sensitive areas.

- So for building such a powerful crime analytics tool we have to collect crime records and evaluate it.

- With the help of technological advancement, we can use historic crime data to recognize crime patterns and use these patterns to predict crimes beforehand.

- We are using data mining techniques such as clustering algorithms to predict crime prone areas.

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