

Crime Data Analysis

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Abstract - Crimes have a negative effect on any society both socially and economically. Law enforcement bodies face numerous challenges while trying to prevent crimes. We propose a Crime Data Analytic Platform (CDAP) to assist law enforcement bodies to perform descriptive, predictive, and prescriptive analysis on crime data. CDAP has a modular architecture where each component is built separate from each other. CDAP also supports plug-in enabling future feature expansions. The platform can ingest any crime dataset which has the required attributes to map dataset to attributes required by the platform. It can then analyze them, train models, and then visualize data. CDAP also combines census data with crime data to achieve more comprehensive crime analysis and their impact on society. Moreover, with the combination of census data and crime data, CDAP provides process reengineering steps to optimize resource allocations of police forces. We demonstrate the utility of the platform by visualizing spatial and temporal relationships in a set of real-world crime datasets..

Keywords :- Crime Data, Analysis, Data Mining, R programming.

This dataset includes criminal offenses in the City and County of Denver for the previous five calendar years plus the current year to date. The data is based on the National Incident Based Reporting System (NIBRS) which includes all victims of person crimes and all crimes within an incident. The data is dynamic, which allows for additions, deletions and/or modifications at any time, resulting in more accurate information in the database such voluminous data.

PROBLEM STATEMENT

Crimes now days are increasing day by day and with different level of intensity and versatility. The result is great loss to society in terms of monetary loss, social loss and further it enhances the level of threat against the smooth livelihood in the society. To overcome this problem the computing era can help to reduce the crime or even may be helpful in predicting the crime so that sufficient measures can be taken to minimize the loss to property and life. The crime rate prediction strategies can be applied on historical data available in the police records by examining the data at various angles like reason of crime, frequency of similar kind of crimes at specific location with other parameters to prepare model the crime prediction. It is the

I INTRODUCTION

major challenge to understand the versatile data available with us then model it to predict the future incidence with acceptable accuracy and further to reduce the crime rate.

III EXISTING SYSTEM

Data mining applies filter mechanism in the data implementation and analysing. While not explicitly stated, the literature implies that imitation attacks are superior anonymity strategies to obfuscation attacks. No perfect visualisation.

IV PROPOSED SYSTEM

We propose a system where we use statistical analysis with sampling data in the analysis. Considering the data visualization which is not done in the big data analysis. No maximum skill is required by the analysts to perform the analysis. Has a good graphical library. The output is more effective using graphical libraries in R

V TECHNOLOGIES USED

Data mining is sensitive to quality of input data that may be inaccurate having missing information (noise, redundant data).

VI IMPLEMENTATION

R programming language has good graphical libraries to visualise in different patterns.

VI EXPERIMENT RESULTS

R programming has a good graphical libraries. By using this we can effectively show the result.

VII CONCLUSION

We built a model that gives us the expected number of crimes that are happened in country in each day in a given time interval. This model can be built for any city or state in the world provided that there is data to analyse.

VIII FUTURE ENHANCEMENT

In the further, we plan to study some more efficient pruning rules to The analysis can be made into an application with better usage of the libraries in the from R Programming like shiny web interface where we can create an web app with r and can propose input and output kind of architecture where we hardcode the coding into the r programming which removes the pain of the developers and the analyst. This library comes in a very handy way in analysing the data.

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