WORDNET – BASED CRIMINAL NETWORK MINING FOR CYBER CRIME INVESTIGATION

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ABSTRACT:

Today's culture, the rate of crime is steadily increasing. Crime is a natural aspect of human life that must be regulated. There has never been a human civilization that has been completely free of deviants, and it seems improbable that such a society will ever exist. The goal of the project is to create a web-based application that allows a regular user to report online crimes, complaints, missing persons, show most sought person details, snatchers, unidentified dead bodies, and stolen automobiles. The server can be accessed by any number of clients. The issue was that people became bored of going from place to place in search of justice. As a result, our programme is capable of registering online, showing investigation updates, and delivering crime-related news, among other things. As a result, it is an application that provides a solution to the problem that arises when conducting anti-crime measures.

INTRODUCTION:

A crime is a purposeful act that can result in physical or psychological harm, as well as material damage or loss, and can result in state or other authority punishment depending on the seriousness of the offence. The quantity and types of illegal acts are on the rise, pushing law enforcement organisations to devise effective techniques for preventing them. Traditional crime-solving procedures, which are slow and inefficient, are unable to generate results in the contemporary environment of fast escalating crime. As a result, if we can devise techniques to forecast crime in detail before it occurs, or develop a "cyber security" that can assist police officers, it will relieve the pressure on cops and aid in crime prevention. We detail the outcomes of a few situations where such approaches were employed, and how they inspired us to do more study in this area. The fundamental reason for the change in crime detection and prevention is due to the authorities' prior and subsequent statistical observations employing such approaches. The main goal of this research is to see how a mix of cyber security may help law enforcement agencies detect, prevent, and solve crimes more accurately and quickly. In conclusion, cyber security can help law enforcement agencies evolve.

OBJECTIVES:

The major goal is to eliminate the inconvenience of having to visit the police station on a regular basis. It also minimises the amount of manpower required to combat crime.

It also makes it easier to obtain information about the crime. The major goal of this project is to secure and protect crime-related data from being stored manually.

LITERATURE SURVEY:

Alun Preece , Irena Spasi´c, Kieran Evans, David Rogers, William Webberley, Colin Roberts, and Martin Innes**,** We introduce the Sentinel platform, which allows for semantic enrichment of live social media data for situational awareness. Iteratively created through a series of pilot studies, the platform is the result of a codesign effort by computing and social scientists. The platform is built on a knowledge-based approach, with input streams (channels) defined by spatial and terminological criteria, collected media preprocessed to identify significant phrases (signals), and data labelled (framed) in connection to an ontology. The 5W framework is used to contextualise the interpretation of processed media (who, what, when, where, and why). The platform is built on knowledge-based elements (channels, signals, **and framing ontologies) and accessible through a set of user-facing apps to allow for the** addition of additional processing modules.

Sandra Zancajo-Blázquez, Susana Lagüela-López, Diego González-Aguilera, and Joaquín Martínez-Sánchez, forensic science, data collecting must be done quickly and efficiently so that the amount of data collected is maximised while the amount of disturbance and time spent on the site is minimised. As a result, indoor mapping systems appear to be a crucial answer, as opposed to static systems, such as laser or photogrammetry-based systems, in which depicting large and complex scenes necessitates data gathering from a large number of points and long-term data processing dedication. This work describes a method for segmenting point clouds captured with a mobile interior mapping device and converting them to 3-D CAD models using parameterized geometric elements from the scene.

Sheena Rewari Dr. Williamjeet Singh, Big data is a large and complex collection of information that originates from a variety of sources such as sensors, material on social networking websites, sales and buy transactions, and so on. Method victimisation a ncient process application becomes robust to such enormous knowledge. For big data analytics, there are a variety of tools and methodologies available. With an ever-increasing population, crime and rate analysis related knowledge may pose a significant challenge for governments in making strategic decisions to maintain law and order.

TESTING AND DEBUGING TECHNIQUES:

SYSTEM TESTING

The process of finding faults is known as testing. Testing is essential for ensuring software quality and reliability. The findings of the testing are also used during maintenance.

BASIC PATH TESTING

To generate test cases for all of the functions, a well-established flow graph with cyclomatic complexity was employed. The following were the primary phases in creating test cases:

Draw a flow graph that corresponds to the code's design.

Calculate the cyclomatic complexity of the resulting flow graph using the following formula:

V (G) =E-N+2

V (G) =P+1

Number of Regions V (G) =V (G) =V (G) =V (G) =V (G) =

V (G) denotes cyclomatic complexity.

The number of edges is denoted by the letter E.

The number of flow graph nodes is N.

The number of predicate nodes is denoted by the letter P.

Establish the foundation for a set of linearly independent pathways.

BLOCK/ARCHITECTURE DIAGRAM:

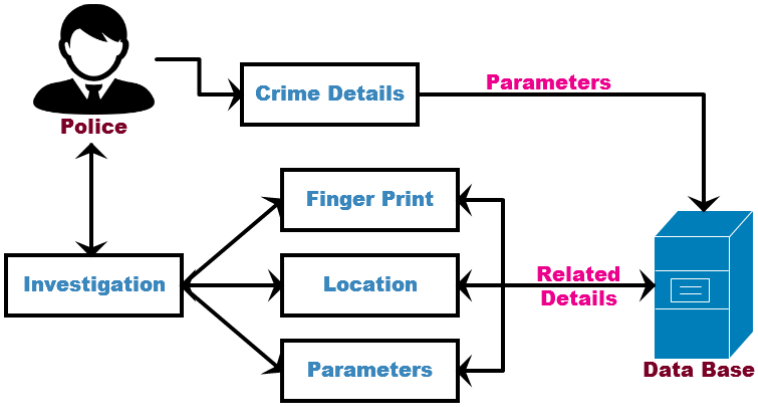

Figure 1

IMLIMENDATION:

ALGORITHM EXPLANATION

Support Vector Machines

Support Vector Machines are perhaps one of the most popular and talked about machine learning algorithms. A hyper plane is a line that splits the input variable space. In SVM, a hyper plane is selected to best separate the points in the input variable space by their class, either class 0 or class 1. In two-dimensions, you can visualize this as a line and let's assume that all of our input points can be completely separated by this line. The SVM learning algorithm finds the coefficients that results in the best separation of the classes by the hyper plane.

NAIVE BAYES ALGORITHM

Naive Bayes is a simple but surprisingly powerful algorithm for predictive modeling.

- The representation used by naive Bayes that is actually stored when a model is written to a file.
- How a learned model can be used to make predictions.
- How to best prepare your data for the naive Bayes algorithm.

- Where to go for more information on naive Bayes In machine learning we are often interested in selecting the best hypothesis (h) given

OUTPUT SCREENSHOT:

Figure 2

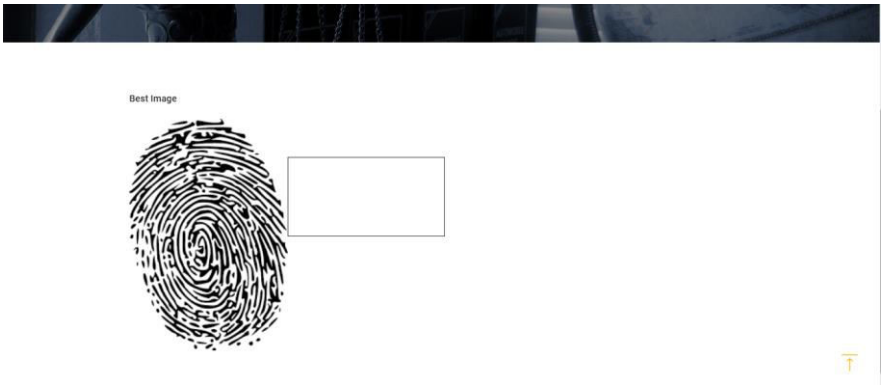

Figure 3

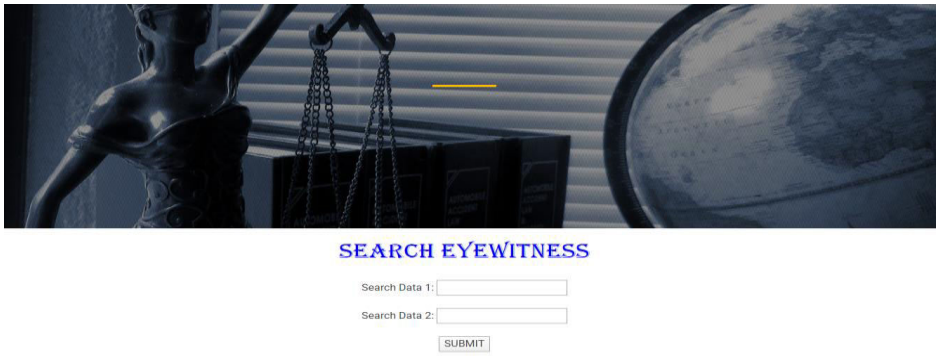

Figure 4

CONCLUSION

Today's culture, the rate of crime is steadily growing. Crime is a natural aspect of human life that must be regulated. There has never been a human civilization that has been completely devoid of deviants, and it seems improbable that such a society will ever exist. This programme is designed to function efficiently and effectively. It leads to customary and auspicious conduct against specific transgression. It is commonly assumed that data can be obtained quickly and accurately. It should also establish the foundation for improved correspondence, reducing misbehaviour and making the entire process less onerous.

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Mr. THAMAS RAJ B, B.E, Student of Computer Science and Engineering at St. Joseph College of Engineering Sriperumbudur, Chennai, Tamil Nadu. I had attended many International Conference, Workshops, cyber security class and Seminars in the area of intrest ethical hacking, Python, Machine Learning and HTML Respectively.