Abstract

Criminal pattern and trend analysis is a systematic technique to identifying and assessing criminal patterns and trends. In a number of ways, it has been quite costly to our community. We must travel to a variety of locations on a regular basis for our daily needs, and we frequently confront a variety of safety issues such as hijacking, kidnapping, and harassment. In usual, when we need to go somewhere, we go to Google Maps first; Google Maps shows one, two, or more ways to get to the destination, but we always take the shortcut route since we don't comprehend the path situation correctly. Is it actually safe or not, and if so, why do we have so many problems? The project's purpose is to look at big data analytics for criminal data predictions and come up with solutions based on machine learning. We study the crime rate in the United States using several data mining clustering methodologies, as well as the K-nearest neighbor (KNN) algorithm to train our dataset.

After statistical analysis and visualization, some interesting facts and trends emerge from criminal data in the United States. These promising findings will aid police departments and law enforcement organizations in better understanding crime issues and providing insights that will enable them to assess operations, estimate the likelihood of occurrences, effectively deploy resources, and optimize decision-making processes. That will aid people in being aware of the crime area and finding a safe route to their destination