

CSCI 225: Coding in Health Analytics

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Crime Analysis Is the crime rate increasing?

Crime Analysis is a detailed study of crime and patterns to better comprehend and tackle the problem in the future. Most police and intelligence agencies these days use tools for Crime Analysis to bolster law enforcement. With the amount of data available these days, there's no better time to implement these techniques. Crime Analysis uses qualitative and quantitative data for the purpose of discovering underlying patterns and meanings.

With the increasing rate and types of crime, a robust system that can analyse the latent patterns, and in some cases pre-emptively predict crime to prevent further crime is the need of the hour, with our project we aim to bring this. Generally, once a crime has been reported there are certain standard procedures/conventions like investigating, and finding a motive (if any), rounding up suspects, trial and conviction. These steps are followed intently to see that justice is served. Often there's more to just following these standards. There are more factors that may have come into play even before the occurrence of the actual crime. And often these factors could have been prevented from further snowballing into something irreversible.

In our Project, we investigate the underlying patterns between crime and socio-economic and socio-political factors. We investigate several datasets for the same time and space to achieve this and uncover how different types of crimes are varying with the time. In addition, we would like to discover the impact of covid19 on various types of crimes reported, or call for services. Furthermore, we would like to study the data of incarceration or executions of perpetrators to know whether the justice has been appropriately served. As for any data analysis project, the final goal is to adapt and rectify the current system to attain a better performing system that can adapt to the rapidly changing dynamic of crime.

References:

<https://www.kaggle.com/lydiavasil/crime-rate-and-unemployment-rate-by-state>

<https://www.kaggle.com/marshallproject/crime-rates>

<https://www.kaggle.com/mizomatic/usa-crime-data-20182019>

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=3510016901&pickMembers%5B0%5D=1.20&cubeTimeFrame.startMonth=01&cubeTimeFrame.startYear=2019&cubeTimeFrame.endMonth=12&cubeTimeFrame.endYear=2021&referencePeriods=20190101%2C20211201>

<https://www.kaggle.com/murderaccountability/homicide-reports>

<https://www.kaggle.com/carlosparadis/stanford-msa>

<https://www.kaggle.com/christophercorrea/prisoners-and-crime-in-united-states>

<https://www.kaggle.com/usdpic/execution-database>

<https://www.kaggle.com/isabelllederer/population-un-data>