

L.A Type of Crime (Post Pandemic)



Los Angeles crime data is available at

<https://catalog.data.gov/dataset/crime-data-from-2020-to-present>

Can we help to prevent further crime in Los Angeles? By predicting future crime in Los Angeles, we can take preemptive measures whenever possible, including but not limited to:

- Increasing police presence in certain neighborhoods where there is *frequent* crime all-year round
- Increasing police presence in certain neighborhoods where there is recurring crime *during a certain time period* (i.e memorial day weekend, week x during the summer, etc.)
- Though controversial, establishing curfews during certain historical spikes in crime
- Sending out general alerts to citizens during historical spikes in crime (ahead of those spikes)
- Allocating more resources for averting crime (quality education, incentivized anonymous tip centers, etc.) in certain areas with high-crime rates

Labels:

- Primary Type of Crime (column in dataset)

Features:

- Use one-hot for multi-dimensional categorical vars
- Hour/Time (possibly using one-hot vector)
- Day of Week (python datetime can compute day of week; possibly use one-hot vector)
- Holidays (binary flag)
 - (e.g. <https://gist.github.com/shivaas/4758439>)
- Weather / Season (Daily, possibly hourly)
 - <https://www.ncdc.noaa.gov/cdo-web/datasets>
- Cross Street (Given data)
- Location (Given Data)
- Income & Population
 - Link Separate Doc (census?)
- Location Type (Given data)
- Victim Age (Given data)
- Victim Sex (Given data)
- Latitude

- Longitude

Is crime self-exciting? Use a Recurrent Neural Network

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