

An aerial photograph of Chicago, showing the city skyline with numerous skyscrapers in the background. In the foreground, the Lake Michigan coastline is visible, featuring a sandy beach, a paved road with traffic, and a green park area with trees and a small pond. The sky is blue with some light clouds.

Crime Analysis in Chicago

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Motivation

We are primarily motivated to work on this project to explore the city of Chicago and how traits of its neighborhoods and regions affects its crime. We are interested in exploring the idea of predictive policing using historical data, and the ethical and practical concerns with its implementation. Through the analysis of the Chicago dataset, we are eager to uncover novel insights into how crime correlates with different social environments, thereby enhancing our overall understanding of the city's social fabric. By doing so, we aspire to contribute meaningfully to the discourse on urban development, safety, and data exploration in the future.

Idea

We're interested in how various physical attributes of neighborhoods and regions has affected crime in Chicago. We're looking at walkability, housing prices, road networks, and other factors to see what correlates to higher crime areas. We want to explore arrests that were driven by the recognition of systemic bias and the disproportionate policing of communities with lower incomes and minority populations.

Data

- Chicago Open Data Portal.
- US Census Income Data
- OSMnx Package for walkability data.
- Zillow/Zestimate for housing price indices
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Method

We plan to use geo-pandas for mapping. We also plan to use Pandas and Geo-pandas to do more traditional analysis. We also plan to do extra analysis with more complex statistical models.

Project Repo:

<https://github.com/kfukutom/urban-informatics-final/tree/main>

