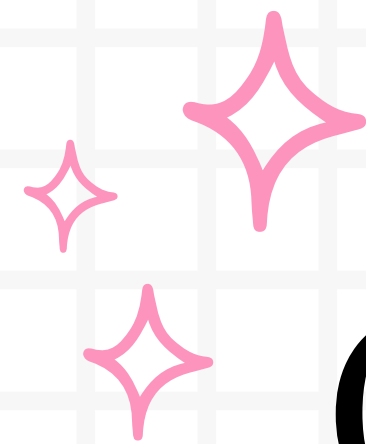




Chicago Traffic Data Dashboard

By: Prashanthi Subbiah



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01. Introduction

02. Layout

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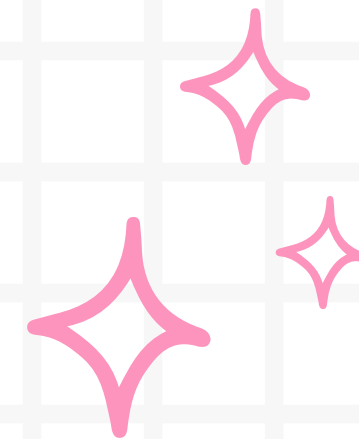
05. Extension Ideas



Introduction

This dashboard began as a project idea from a Python course I took during my MPP, to cover the creation and use of Shiny Applications

Layout



Top 10 Traffic Alerts in Chicago

Select Type and Subtype:

JAM - Unclassified

☐ Switch Button

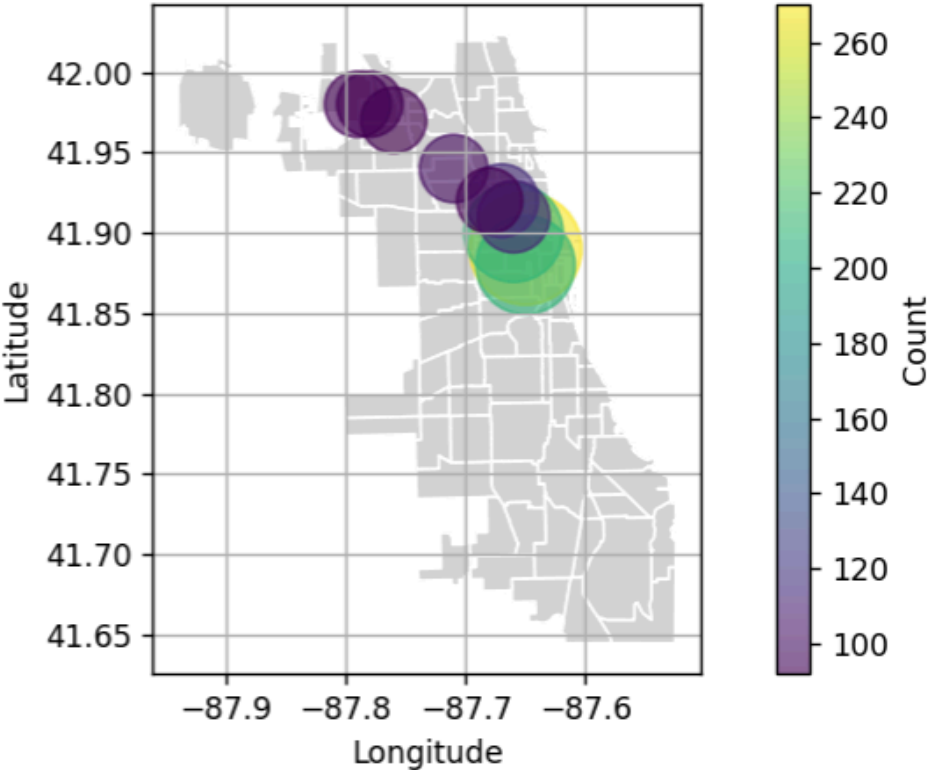
Hour Range of the Day

0

10

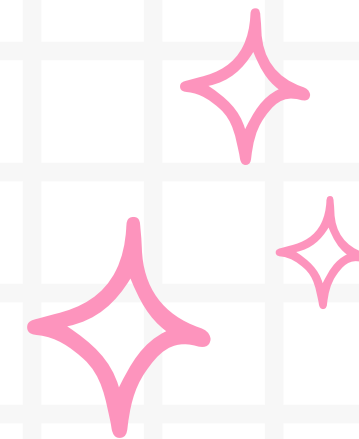
23

Scatter Plot of JAM - Unclassified Cases at 00:00 to 10:00



| latitude | longitude | count |
|----------|-----------|-------|
| 41.89 | -87.65 | 270 |
| 41.90 | -87.66 | 209 |
| 41.88 | -87.65 | 209 |
| 41.92 | -87.67 | 115 |
| 41.91 | -87.66 | 111 |
| 41.94 | -87.71 | 99 |
| 41.98 | -87.79 | 93 |
| 41.92 | -87.68 | 92 |
| 41.98 | -87.78 | 92 |
| 41.97 | -87.76 | 92 |

Features



Dropdown

Top 10 Traffic Alerts in Chicago

Select Type and Subtype:

JAM - Unclassified

JAM - Unclassified

ACCIDENT - Unclassified

ROAD CLOSED - Unclassified

HAZARD - Unclassified

ACCIDENT - Major

ACCIDENT - Minor

HAZARD - On Road

HAZARD - On Shoulder

HAZARD - Weather

JAM - Heavy Traffic

JAM - Moderate Traffic

JAM - Stand Still Traffic

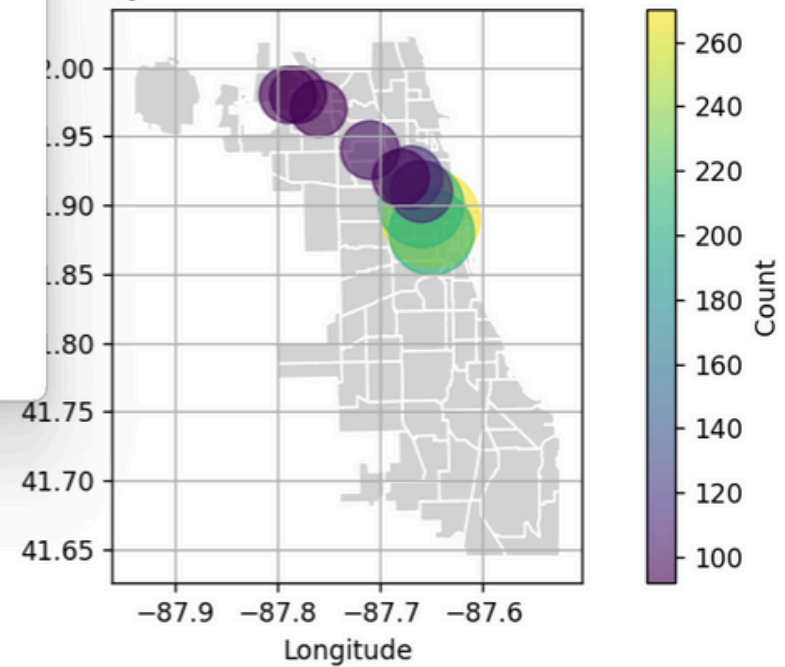
ROAD CLOSED - Event

ROAD CLOSED - Construction

JAM - Light Traffic

ROAD CLOSED - Hazard

Plot of JAM - Unclassified Cases at 00:00 to 10:00



| latitude | longitude | count |
|----------|-----------|-------|
| 41.89 | -87.65 | 270 |
| 41.90 | -87.66 | 209 |
| 41.88 | -87.65 | 209 |
| 41.92 | -87.67 | 115 |
| 41.91 | -87.66 | 111 |
| 41.94 | -87.71 | 99 |
| 41.98 | -87.79 | 93 |
| 41.92 | -87.68 | 92 |
| 41.98 | -87.78 | 92 |
| 41.97 | -87.76 | 92 |

Slider & Switch - Off

Top 10 Traffic Alerts in Chicago

Select Type and Subtype:

JAM - Unclassified

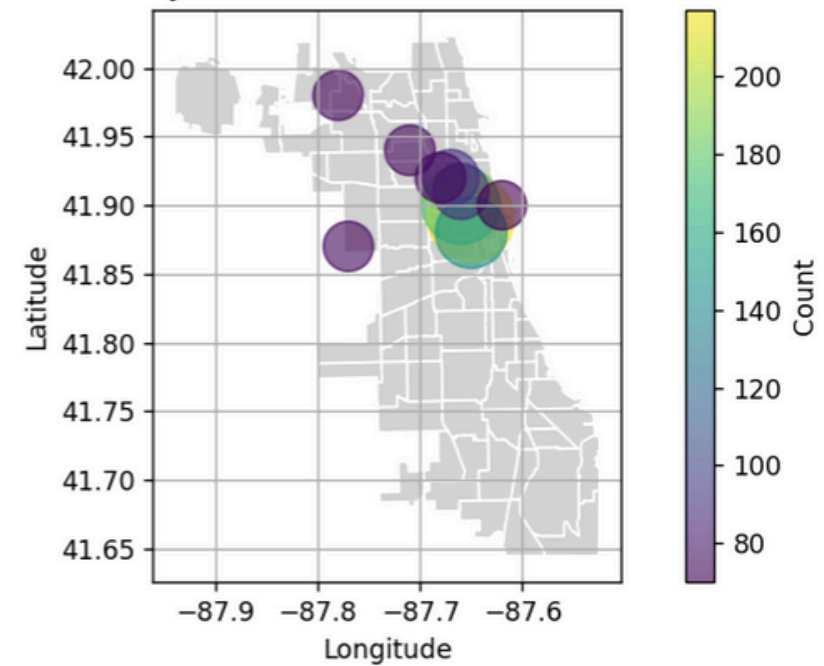
☐ Switch Button

Hour Range of the Day

0 3

23

Scatter Plot of JAM - Unclassified Cases at 00:00 to 03:00



| latitude | longitude | count |
|----------|-----------|-------|
| 41.89 | -87.65 | 217 |
| 41.90 | -87.66 | 178 |
| 41.88 | -87.65 | 148 |
| 41.92 | -87.67 | 92 |
| 41.91 | -87.66 | 91 |
| 41.94 | -87.71 | 74 |
| 41.92 | -87.68 | 74 |
| 41.87 | -87.77 | 73 |
| 41.98 | -87.78 | 73 |
| 41.90 | -87.62 | 70 |

Slider & Switch – Off

Top 10 Traffic Alerts in Chicago

Select Type and Subtype:

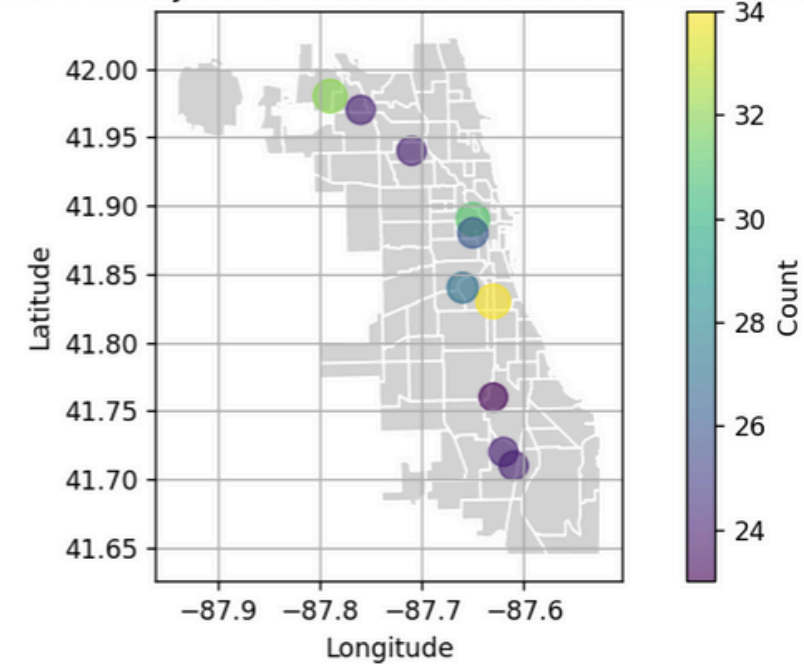
JAM - Unclassified

☐ Switch Button

Hour Range of the Day



Scatter Plot of JAM - Unclassified Cases at 05:00 to 10:00



| latitude | longitude | count |
|----------|-----------|-------|
| 41.83 | -87.63 | 34 |
| 41.98 | -87.79 | 32 |
| 41.89 | -87.65 | 31 |
| 41.84 | -87.66 | 27 |
| 41.88 | -87.65 | 26 |
| 41.97 | -87.76 | 24 |
| 41.72 | -87.62 | 24 |
| 41.71 | -87.61 | 24 |
| 41.94 | -87.71 | 24 |
| 41.76 | -87.63 | 23 |

Slider & Switch – On

Top 10 Traffic Alerts in Chicago

Select Type and Subtype:

JAM - Unclassified

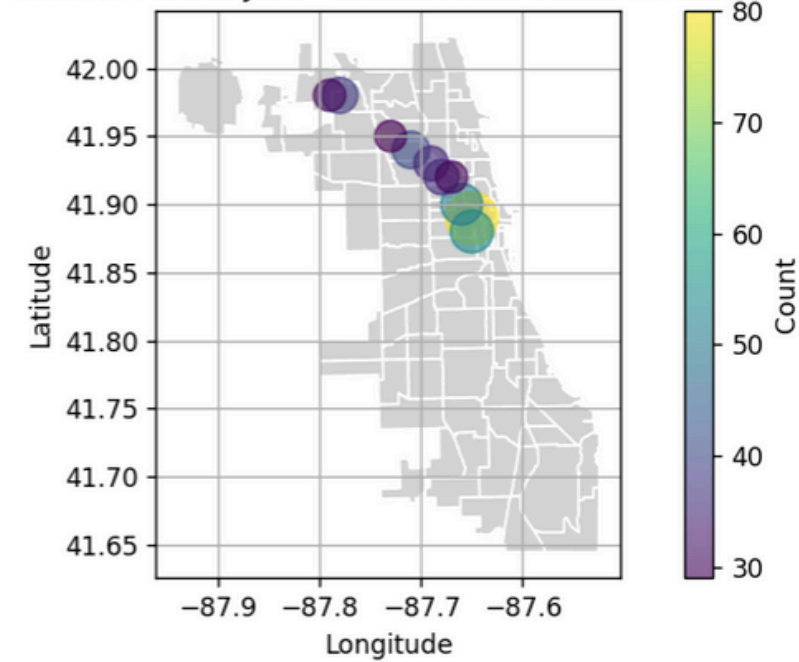
☒ Switch Button

Single Hour of the Day

0

23

Scatter Plot of JAM - Unclassified Cases at 00:00



| latitude | longitude | count |
|----------|-----------|-------|
| 41.89 | -87.65 | 80 |
| 41.88 | -87.65 | 54 |
| 41.90 | -87.66 | 51 |
| 41.94 | -87.71 | 41 |
| 41.98 | -87.78 | 38 |
| 41.92 | -87.68 | 36 |
| 41.93 | -87.69 | 35 |
| 41.98 | -87.79 | 30 |
| 41.92 | -87.67 | 30 |
| 41.95 | -87.73 | 29 |

Slider & Switch – On

Top 10 Traffic Alerts in Chicago

Select Type and Subtype:

JAM - Unclassified

☒ Switch Button

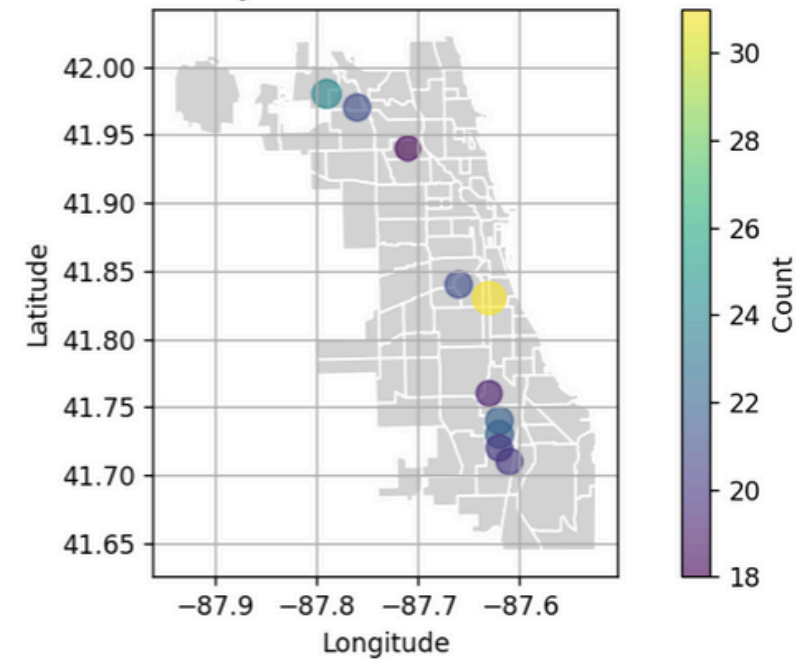
Single Hour of the Day

0

10

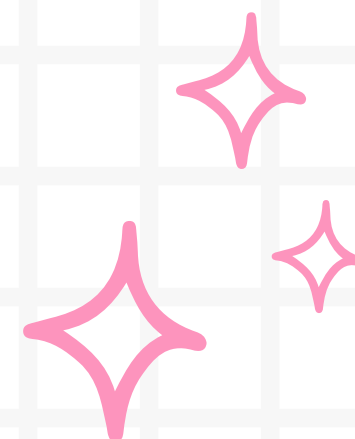
23

Scatter Plot of JAM - Unclassified Cases at 10:00



| latitude | longitude | count |
|----------|-----------|-------|
| 41.83 | -87.63 | 31 |
| 41.98 | -87.79 | 24 |
| 41.74 | -87.62 | 22 |
| 41.73 | -87.62 | 22 |
| 41.97 | -87.76 | 21 |
| 41.84 | -87.66 | 21 |
| 41.72 | -87.62 | 20 |
| 41.71 | -87.61 | 20 |
| 41.76 | -87.63 | 19 |
| 41.94 | -87.71 | 18 |

Uses



Potential Uses

- Tracking Location with highest concentration of Accidents



Potential Uses

- Tracking Location with highest concentration of Accidents
- Tracking Time of the day with highest concentration of Traffic Jams





Extension Ideas

Some ways this idea could be extended to make it more useful in practice include deriving the data from publicly available websites, which are regularly updated

Thank
You

