[Carto]

Find your next home

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Sonnet Salice

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Our Vision

Find ***IDEAL*** neighbourhoods

FAMILIARIZE yourself with city

EASY UI TO USE

FOCUS ON MINIMALISM

Overview

01 Features of our map

- Transportation Routes
- Highlighting Streets
- Zoom Levels
- Hospitals and Schools
- Neighbourhood Map w/ Crime Data
- Optimization in M4

02 What to do next?

- The Problem Today
- Current Situation

03 Our Solution

- Description/Mockup
- Development Plan

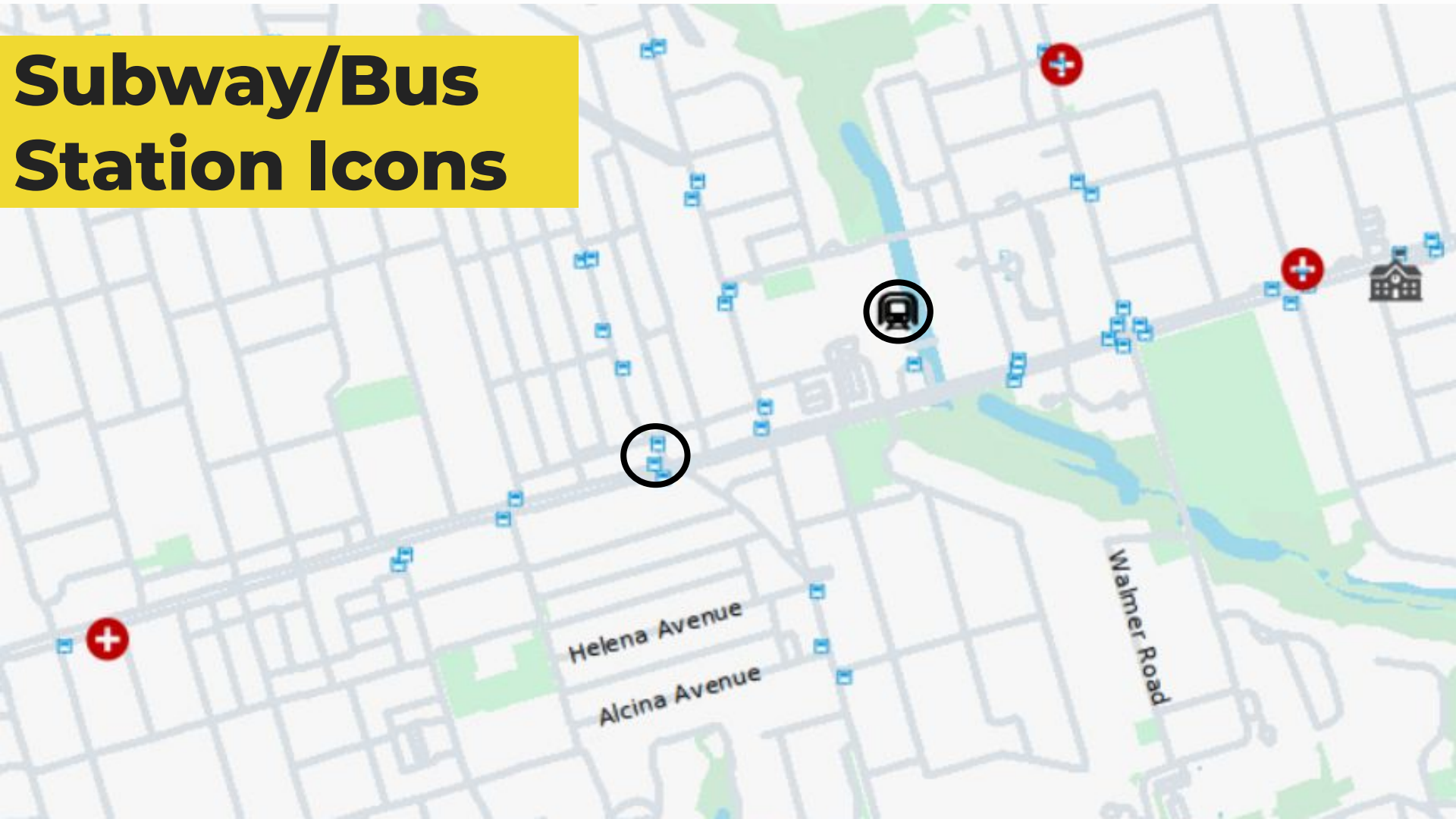
04 Conclusion

Features

EASTERN MARKET
LIBRARY & METRO
PLAYGROUND &
HILL CENTER
BARRACKS ROW

Toggleable Subway Routes

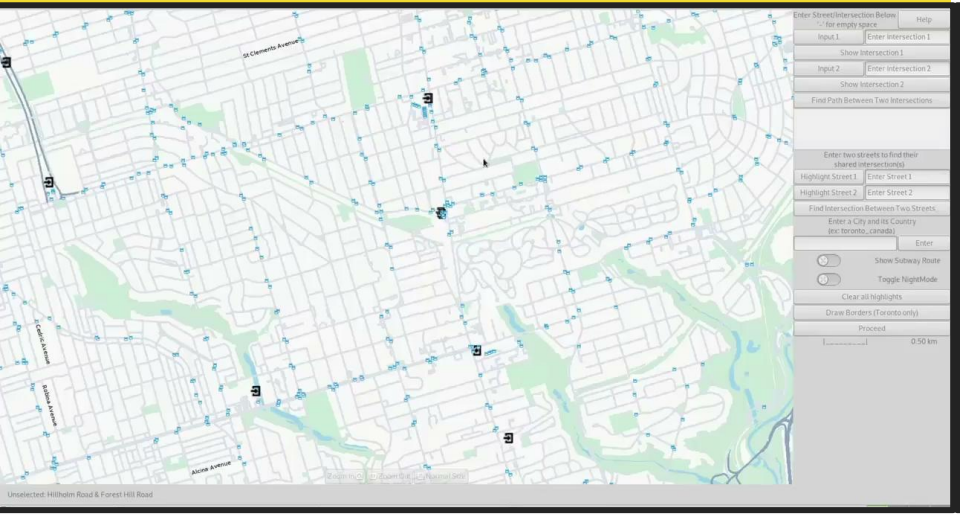
Subway/Bus Station Icons



Highlighting Streets

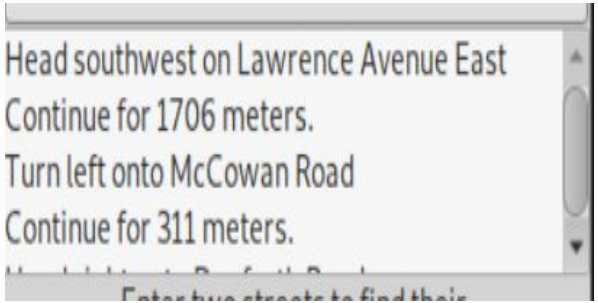
Find Path Between Two Intersections

Using mouse

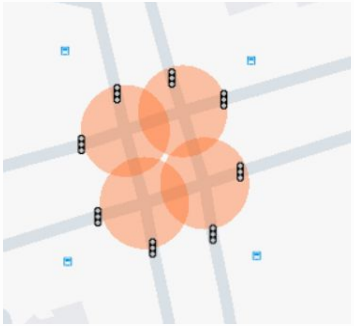


Using text

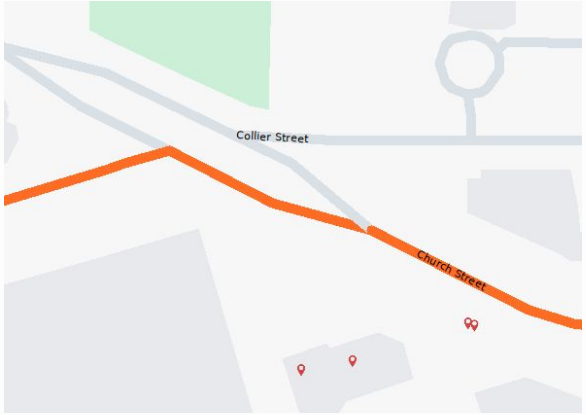
Scrollable Instructions



Repeating Intersection Names



Small Turn Angles



Head right onto Church Street
Continue for 88 meters.

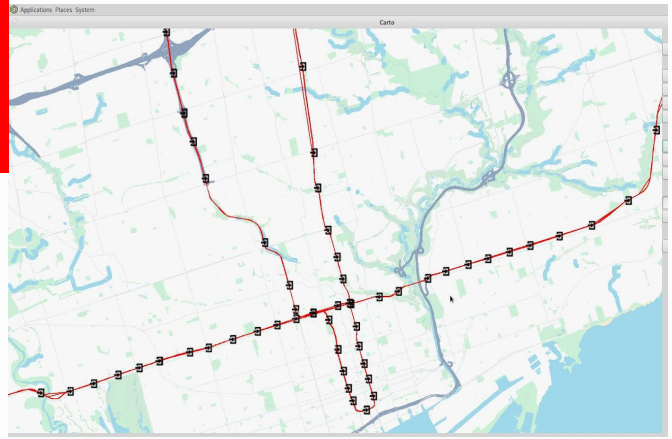
KEY FACTOR IN RESIDENCE DECISION!
Sherwood Avenue
Hospitals and Schools
Zoom In
Zoom Out
Normal Size

Our Zoom Levels: Higher

1

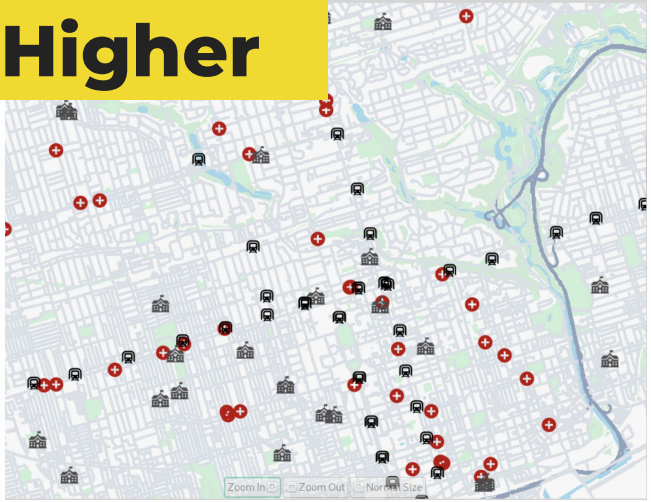
~20 Kilometers

2



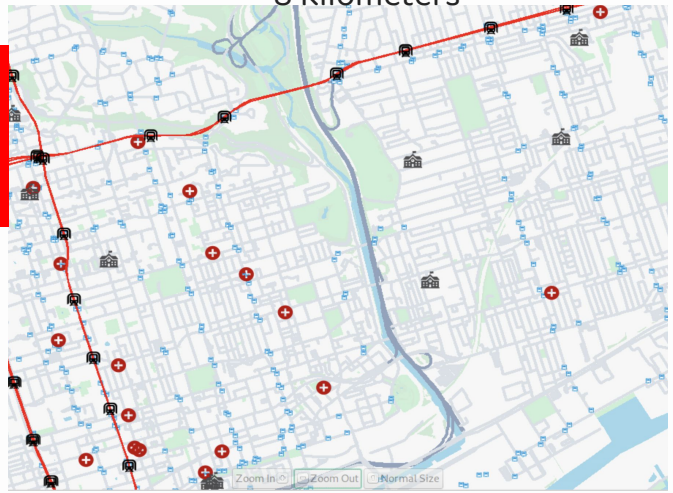
~12 Kilometers

3



~8 Kilometers

4



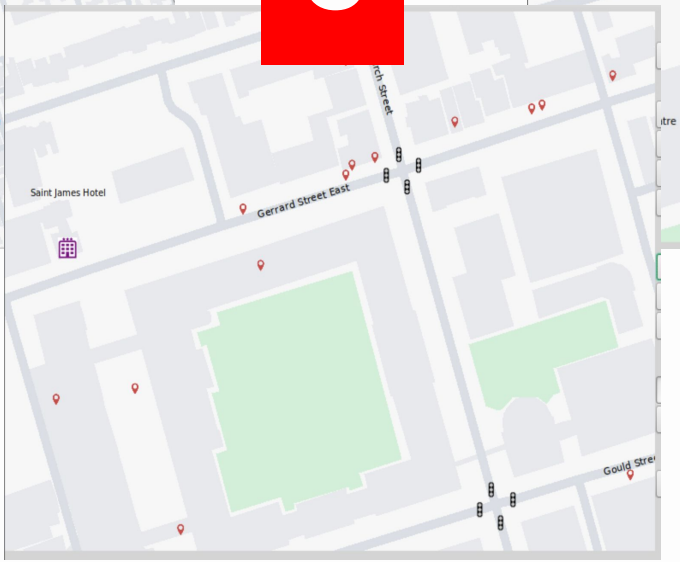
~5 Kilometers

Our Zoom Levels: Lower w/ More Details

5

~2 Kilometers

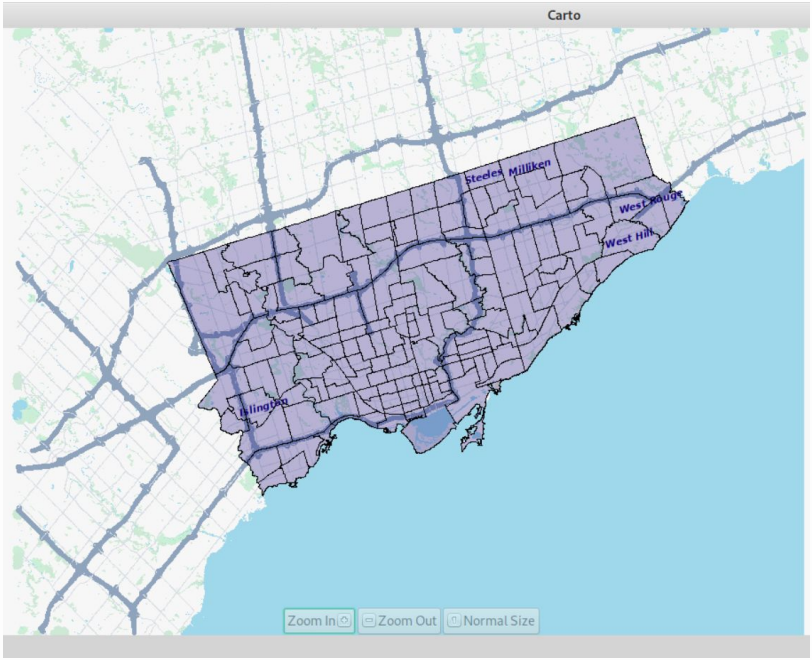
6

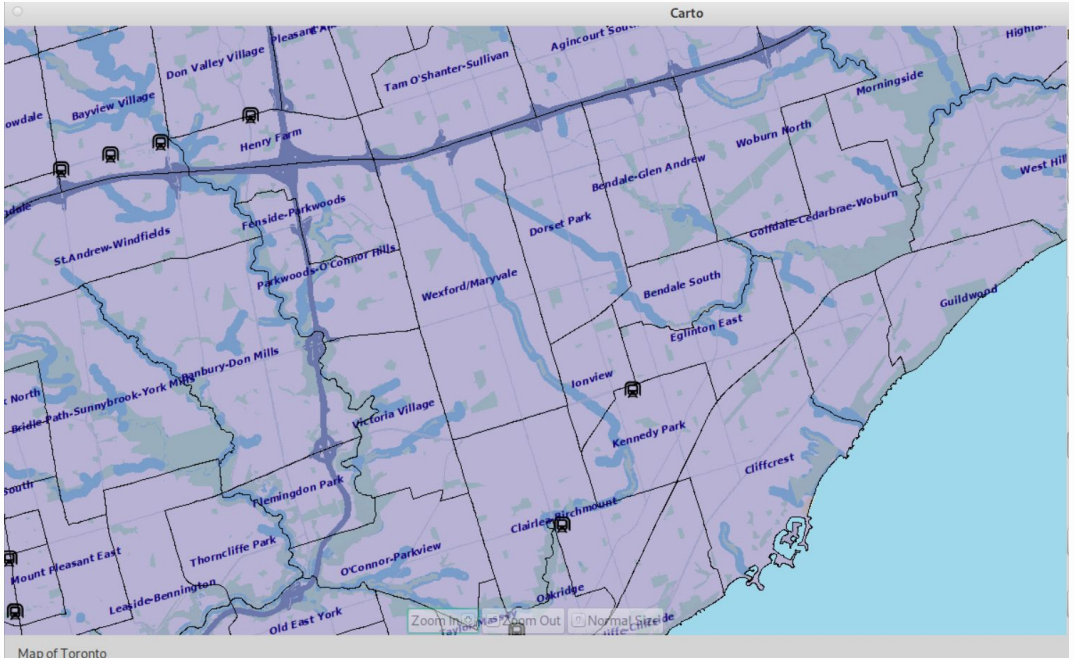


~600 METERS

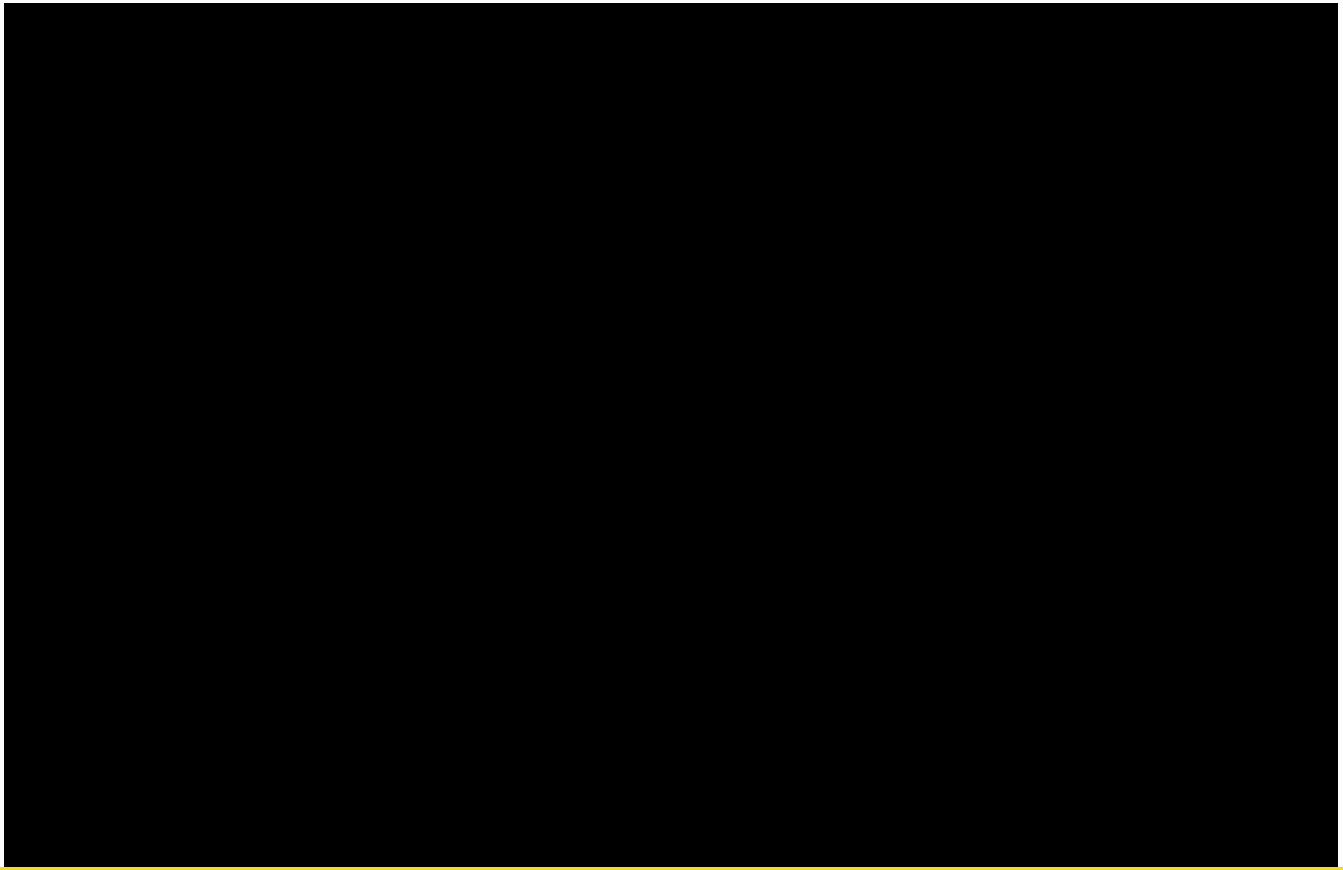
7

~200 METERS





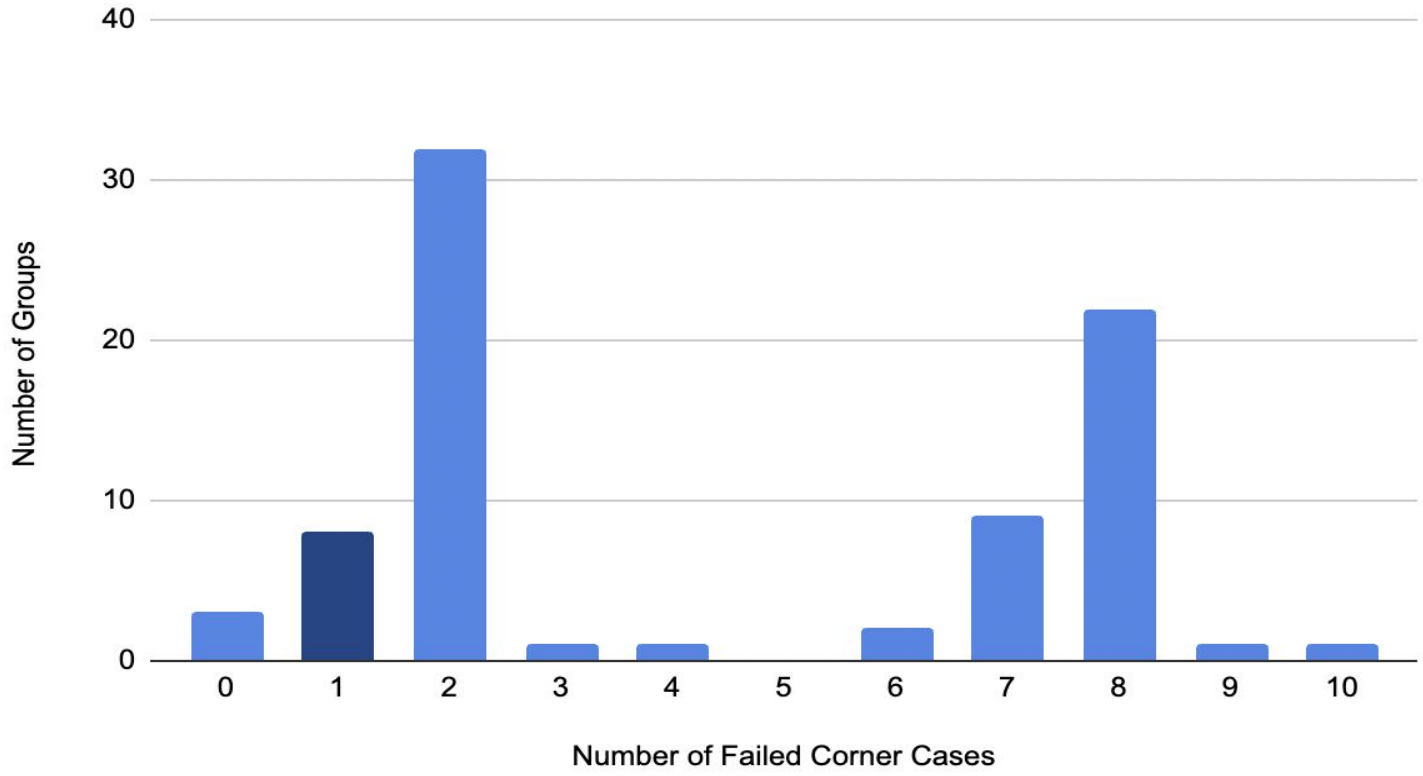
Neighbourhoods of Toronto: Visualized



Pop up Crime/Population Data

Optimization

Legality and Stability of Resulting Path



What do we want to do next?

The Problem

There lacks a map that can highlight crucial living based factors such as safety, accessibility, and affordability.

70,000

Number of new residents in Toronto in 2023 (source: Statistics Canada)

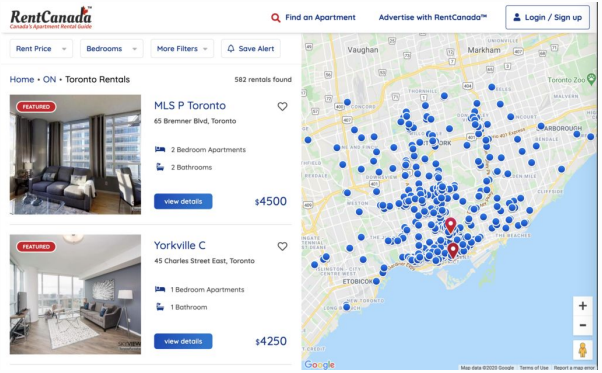
Current Situation and Problems

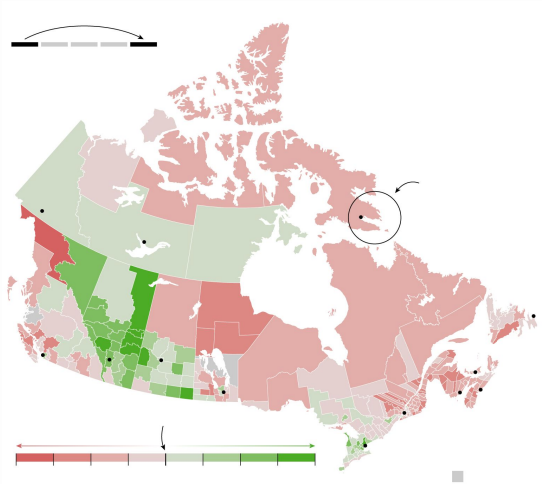
- More people are moving to new places

- There does not exist a map that helps people find their ideal neighbourhoods

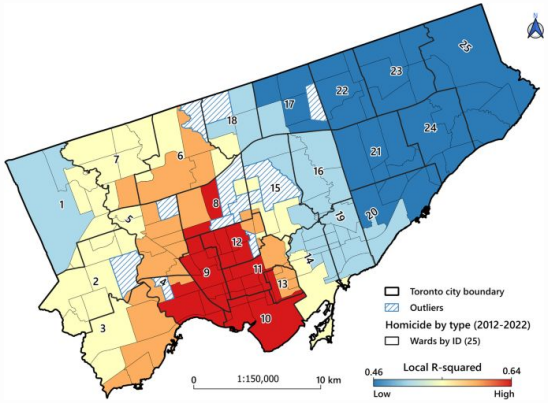
What's Currently Available?

Rental Prices[1]



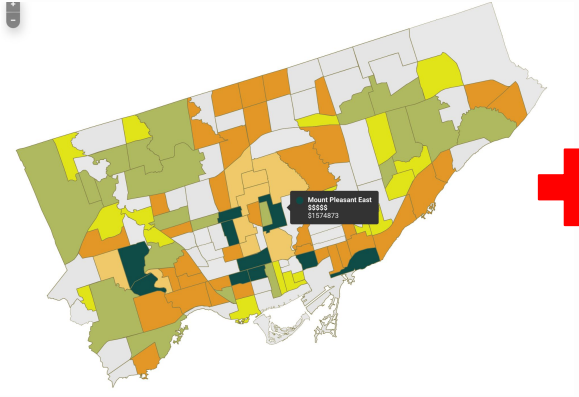


Crime Rates



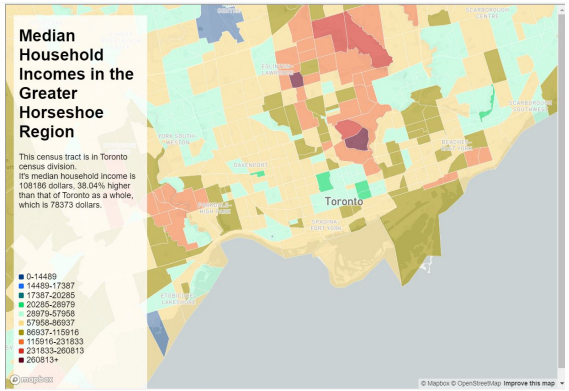
Financial Distribution

Our Solution: ***Combine them all***



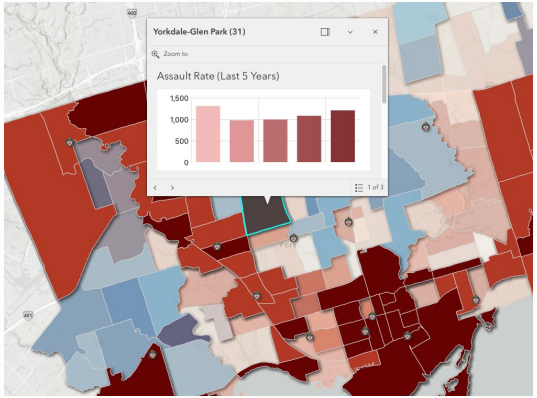
Housing Prices

+



Income Distribution

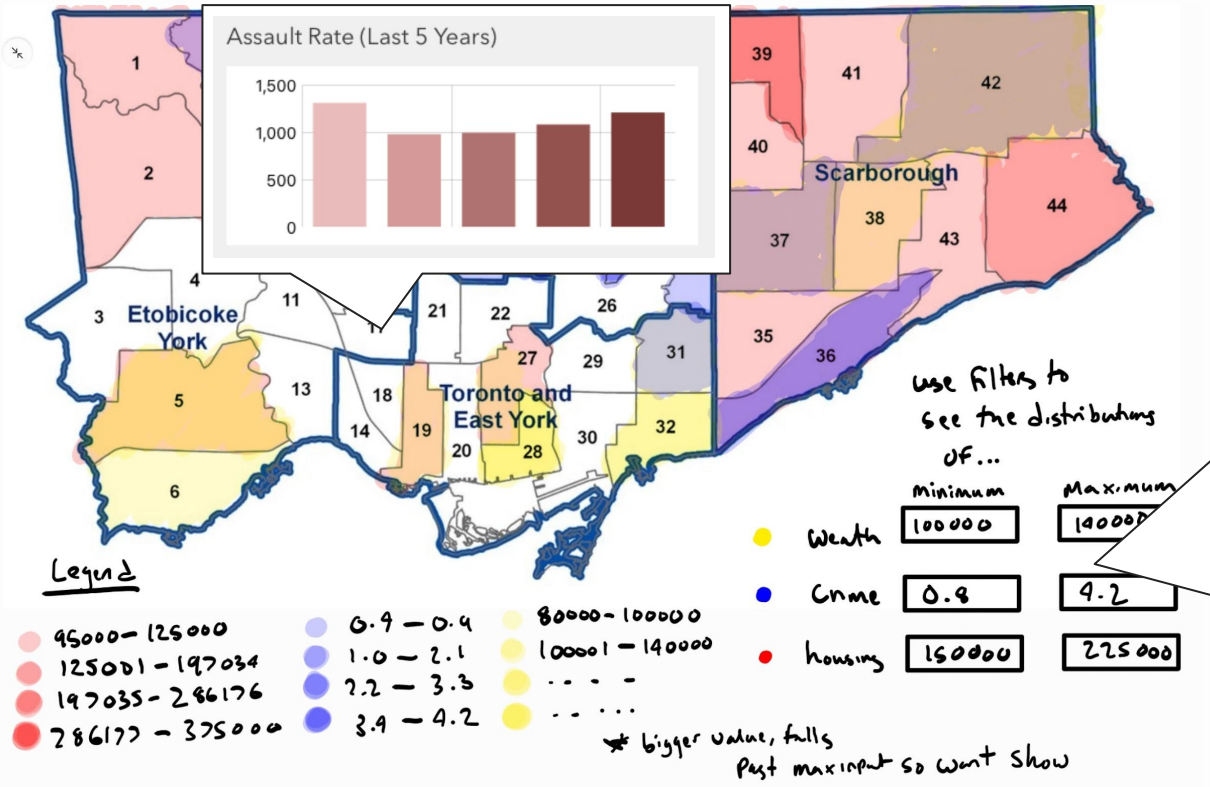
+

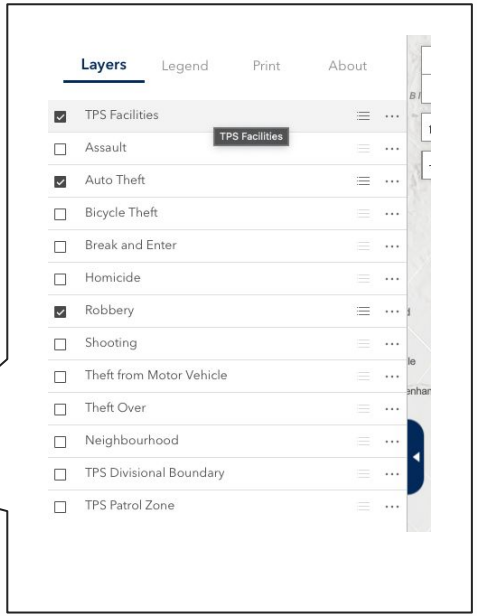


Comprehensive Crime Data

All ARE KEY FACTOR IN RESIDENCE DECISION TOO!

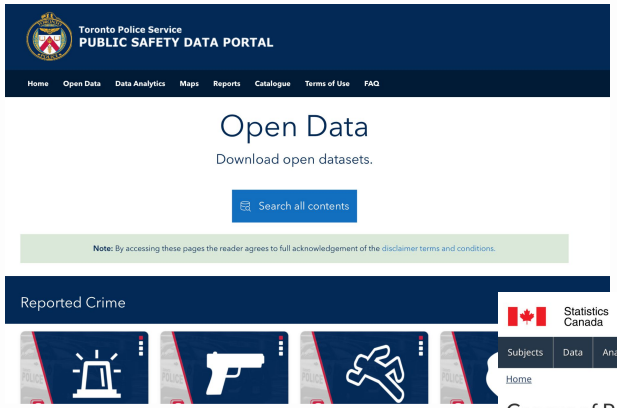
Our Solution: Combine them all





Development Plan

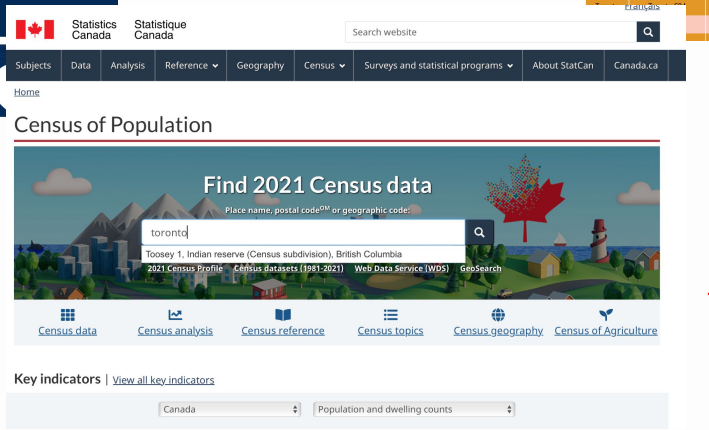
Step 1: Gather Data



Crime Data from Toronto Police Services Open Data

Housing Prices from Toronto Regional Real Estate Board

Area	Municipality	Community	Sales	Average Price	New Listings	Average SP/LP	Average DOM
Toronto	Toronto C01	Bay Street Corridor	0	n/a	0	n/a	n/a
Toronto	Toronto C01	Dufferin Grove	1	n/a	1	n/a	n/a
Toronto	Toronto C01	Kensington-Chinatown	2	n/a	5	n/a	n/a
Toronto	Toronto C01	Little Portugal	2	n/a	8	n/a	n/a
Toronto	Toronto C01	Niagara	0	n/a	1	n/a	n/a
Toronto	Toronto C01	Palmerston-Little Italy	3	$2,647,000.00	10	102%	10
Toronto	Toronto C01	Trinity-Bellwoods	2	n/a	8	n/a	n/a
Toronto	Toronto C01	University	1	n/a	4	n/a	n/a
		Waterfront Communities C01	0	n/a	0	n/a	n/a
Toronto	Toronto C02	Annex	8	$4,096,000.00	16	96%	15
Toronto	Toronto C02	Casa Loma	3	$7,175,000.00	14	92%	45
Toronto	Toronto C02	Wychwood	7	$1,872,000.00	13	98%	23
Toronto	Toronto C02	Yonge-St. Clair	7	$2,856,000.00	13	96%	21
Toronto	Toronto C03	Forest Hill South	12	$5,297,000.00	34	93%	22
Toronto	Toronto C03	Humewood-Cedarvale	13	$2,261,000.00	23	95%	15
Toronto	Toronto C03	Oakwood-Vaughan	11	$1,051,000.00	33	96%	22
Toronto	Toronto C03	Yonge-Eglinton	7	$2,535,000.00	17	97%	20
Toronto	Toronto C04	Bedford Park-Nortown	21	$2,593,000.00	66	97%	20
Toronto		Englemount-Lawrence	4	$1,992,000.00	14	94%	10
Toronto	Toronto C04	Forest Hill North	3	$2,292,000.00	10	97%	25

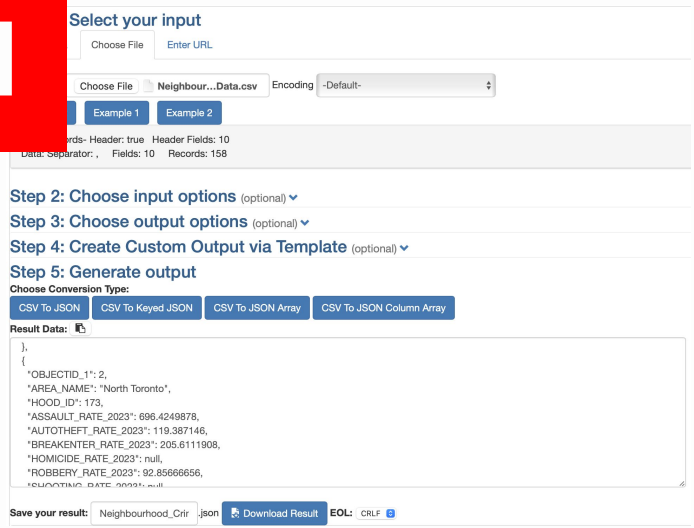


Income Distribution from 2021 Census on Stats Can

Development Plan

Step 2: Parse Data

1



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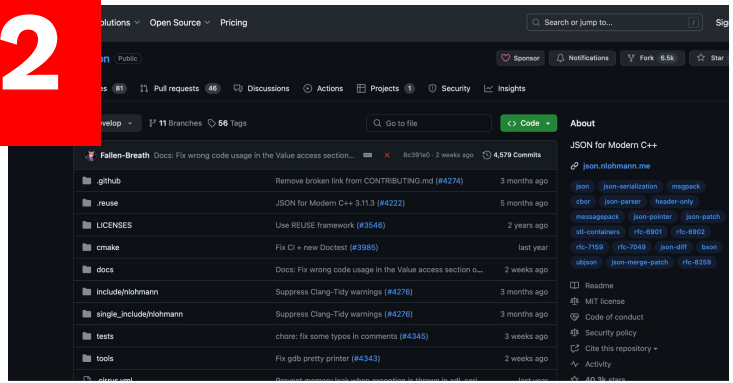


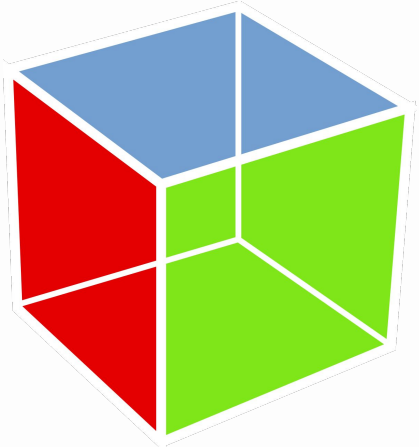
RapidJSON

1: Convert CSV to JSON

2: Parse JSON on C++ with libraries

Development Plan

Step 3: Implement Visualization of Data using GTK



Step 4: Repeat for other MAJOR cities experiencing radical growth

Conclusion

Key Features of our map

- Transportation Routes
- Highlighting Streets
- Zoom Levels
- Hospitals and Schools
- Neighbourhood Map w/ Crime Data
- Optimization in M4

What we would like to do next

- More Data Visualized
- More Cities
- **Comprehensive information all in ONE map for new residents**

Citations

[1]C. Nast, “Air Travel,” Condé Nast Traveler. https://www.cntraveler.com/news-and-advice/air-travel

[2]“Cartoon Neighborhood Images – Browse 21,456 Stock Photos, Vectors, and Video,” Adobe Stock. https://stock.adobe.com/ca/search?k=cartoon+neighborhood (accessed Apr. 30, 2024).

[3]“Toronto Real Estate Prices: By Neighbourhood,” the BREL Team | Toronto Realtors. https://www.getwhatyouwant.ca/toronto-real-estate-prices-by-neighbourhood

[4]A. Mohammadi et al., “Homicide rates are spatially associated with built environment and socio-economic factors: a study in the neighbourhoods of Toronto, Canada,” BMC Public Health, vol. 22, no. 1, Aug. 2022, doi: https://doi.org/10.1186/s12889-022-13807-4.

[5]D. Saunders and T. Cardoso, “A tale of two Canadas: Where you grow up affects your income in adulthood,” The Globe and Mail, Jun. 23, 2017. https://www.theglobeandmail.com/news/national/a-tale-of-two-canadas-where-you-grow-up-affects-your-adult-income/article35444594/

[6]E. Dunn, “List Your Rental Property in Toronto - Top 7 Websites,” LandLord, Jan. 15, 2022. https://landlord.net/property-management/list-your-rental-property-in-toronto-top-7-websites/ (accessed Apr. 30, 2024).

[7]Admin, “11 Factors to Consider When Deciding Where to Live,” Pemberton Holmes Real Estate, Aug. 14, 2017. https://pembertonholmes.com/11-factors-to-consider-when-deciding-where-to-live/