



CARTO

Powering Cloud-based Spatial Analytics For Retail with CARTO

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Introductions



Miguel Alvarez

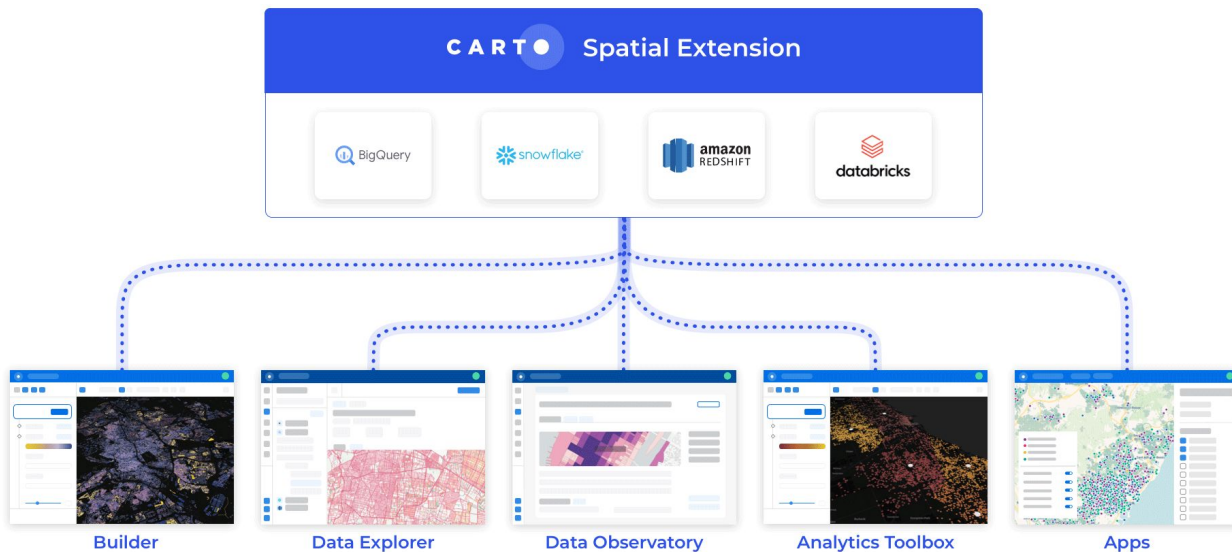
Lead Data Scientist at CARTO

Agenda

- Intro to cloud native CARTO
- Intro to the Analytics Toolbox
- Analytics Toolbox - Retail module
- Use case: Advanced spatial analysis to find the best new locations in Honolulu
- Questions and Answers

The new cloud native CARTO

CARTO now brings together cloud connectivity, visualization, spatial analysis and development capabilities in a unified workspace.

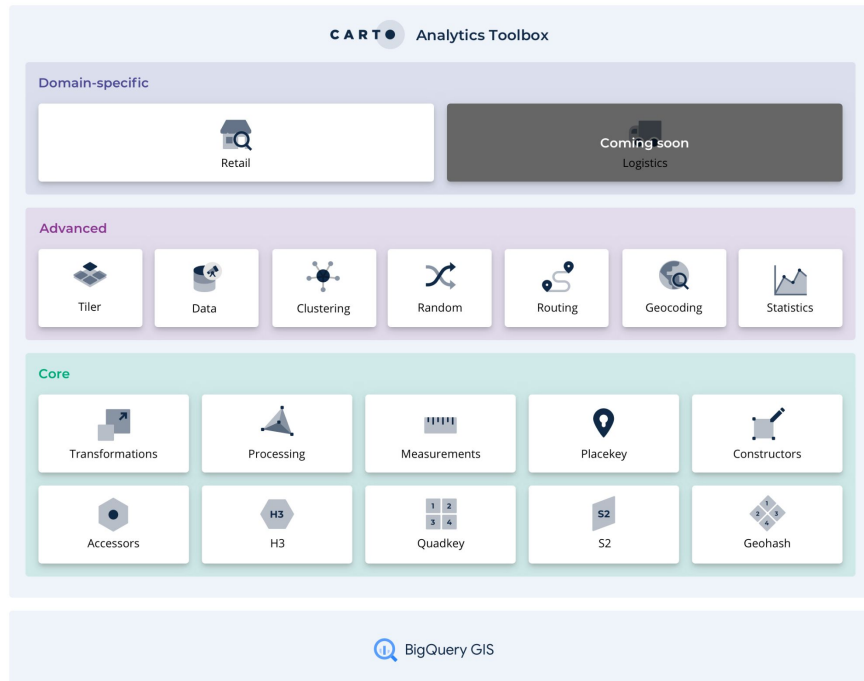


CARTO — Unlock the power of spatial analysis

Analytics Toolbox

Overview

- Set of UDFs and Stored Procedures that unlock advanced Spatial Analytics **natively** within the data warehouses.
- Executed directly from the CARTO Workspace or from your client, using **simple SQL** commands.
- Separated in **different levels** of abstraction, with core, advanced and domain specific functions (e.g. retail).

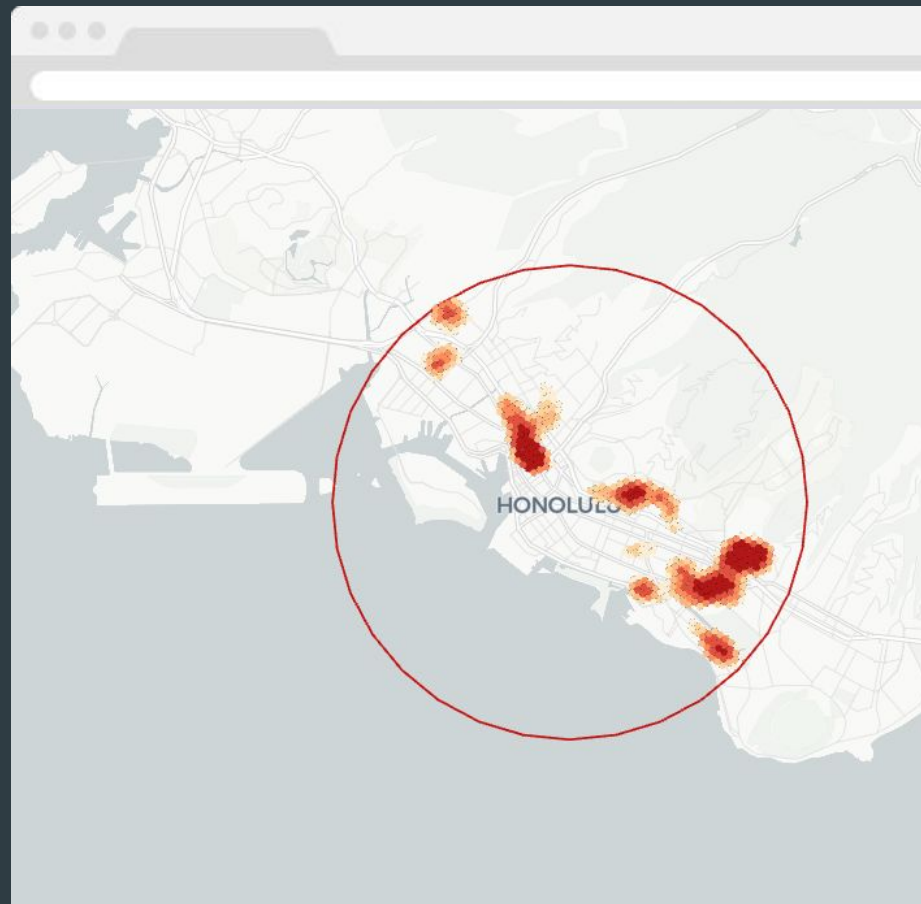


Analytics Toolbox - Retail module

COMMERCIAL HOTSPOTS

Find hotspots according to a set of
weighted variables

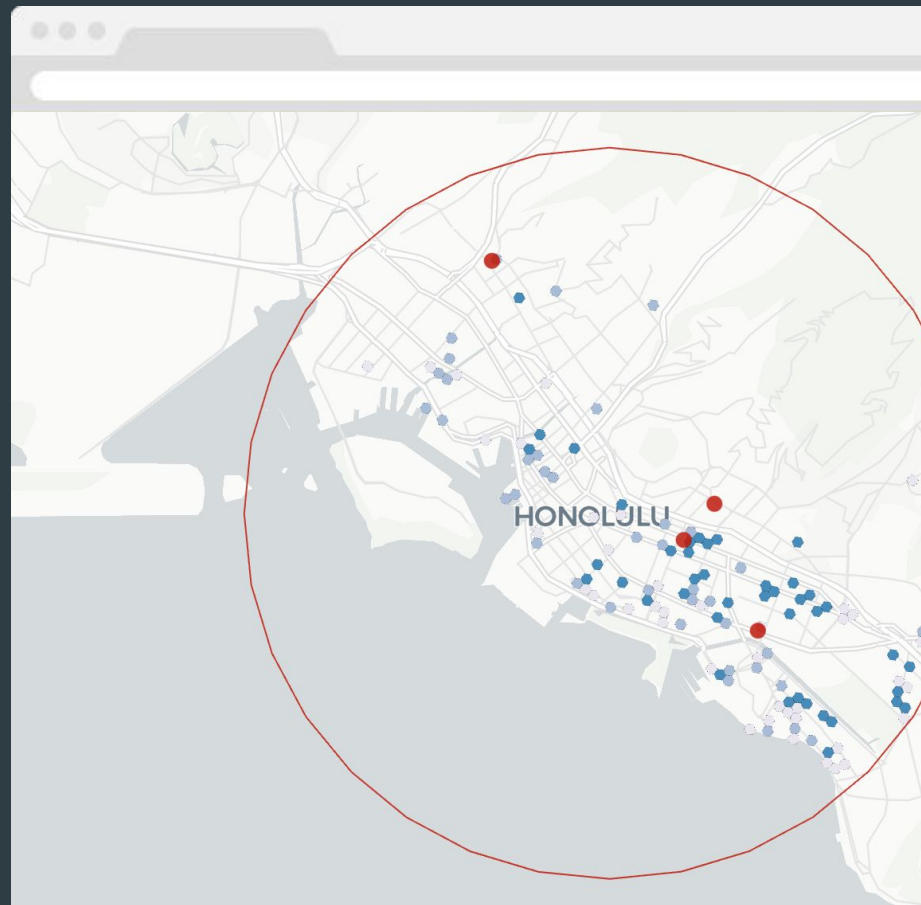
→ [Documentation](#)



TWIN AREAS

Find similar areas to a target location according to a set of external/internal variables

→ [Documentation](#)



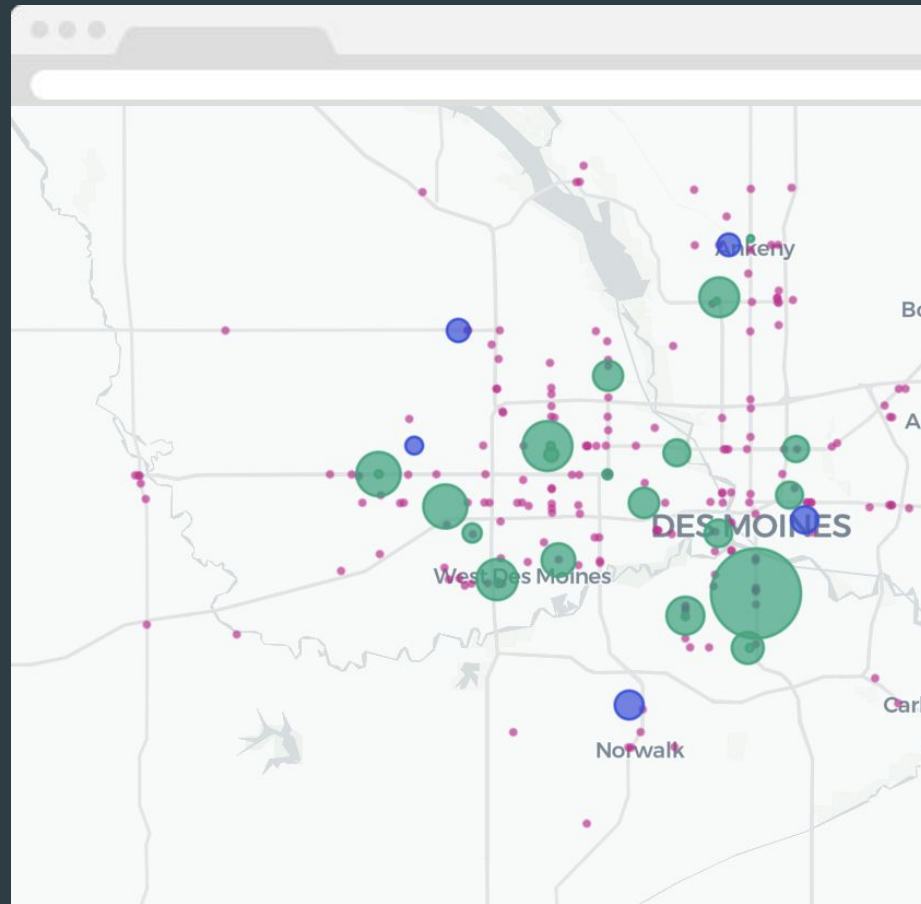
REVENUE PREDICTION

Three procedures that leverage the scalability and computational efficiency of spatial indexes for solving this use-case end-to-end.

→ BUILD REVENUE MODEL DATA

→ BUILD REVENUE MODEL

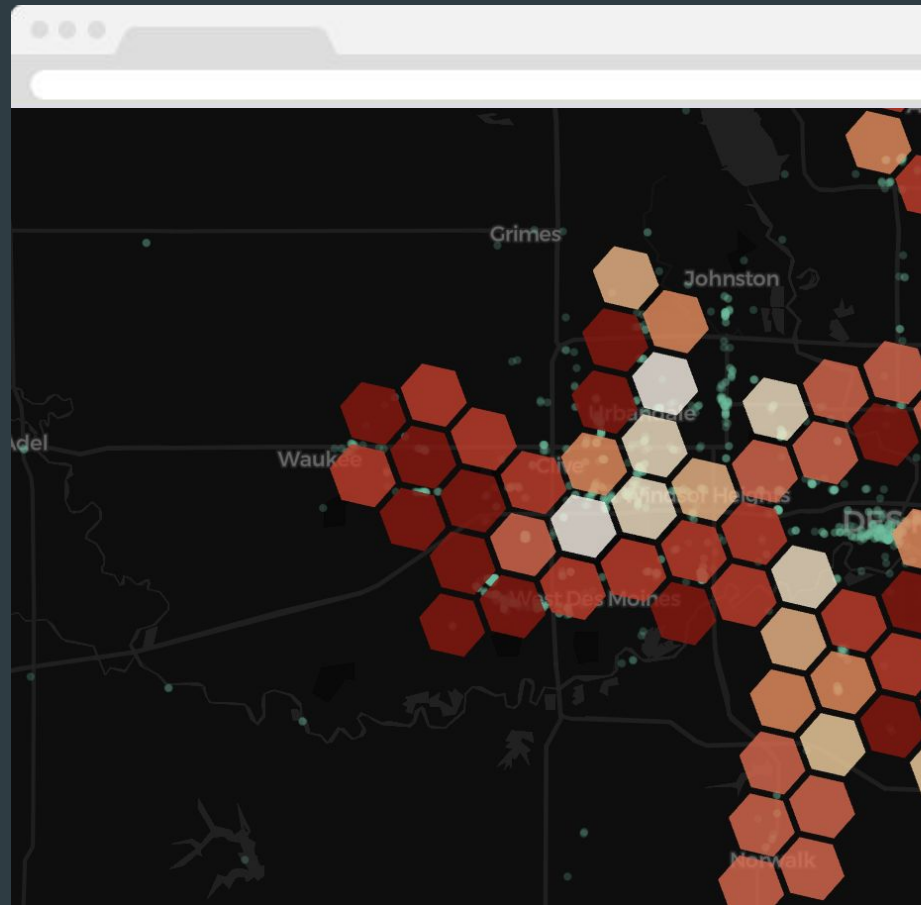
→ PREDICT REVENUE AVERAGE



WHITESPACE ANALYSIS

Find the best locations for opening
a new store

→ [Documentation](#)

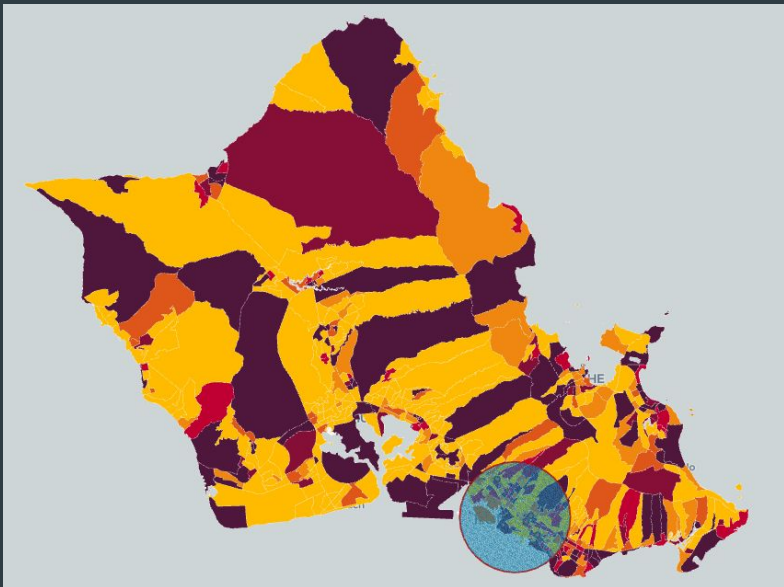


An aerial photograph of a city, likely Honolulu, showing a dense grid of streets and buildings. The image is dark, with a deep blue overlay that is more prominent in the upper right and lower right areas, creating a moody, high-tech aesthetic. The text is overlaid on the left side of the image.

Use case: Advanced spatial analysis to find the best new locations in Honolulu

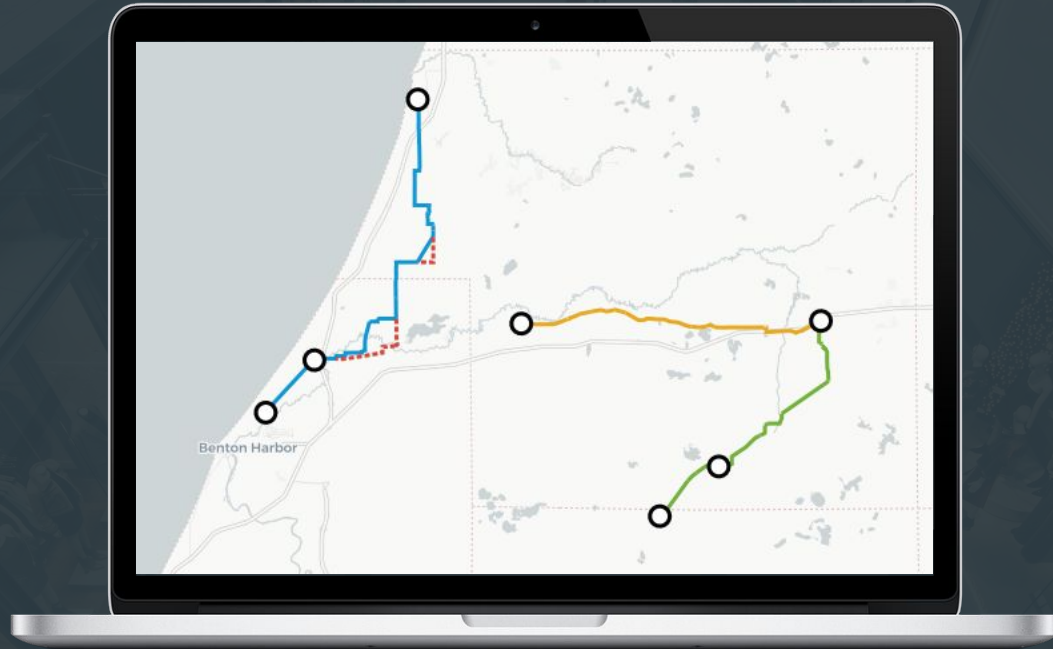
Use case

Opening a new Pizza Hut location
in Honolulu



- Not enough data points to use a predictive model
- Spatial indexes: H3 grid cells of resolution 10
- Target demographics: male and female ages 18 - 34
- Based on commercial hotspots and the presence of competitors

It's time for a real world example!



Thanks for listening!

Any questions?

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