CARTO

# Powering Cloud-based Spatial Analytics For Retail with CARTO

Follow @CARTO on Twitter

# Introductions

Miguel Alvarez

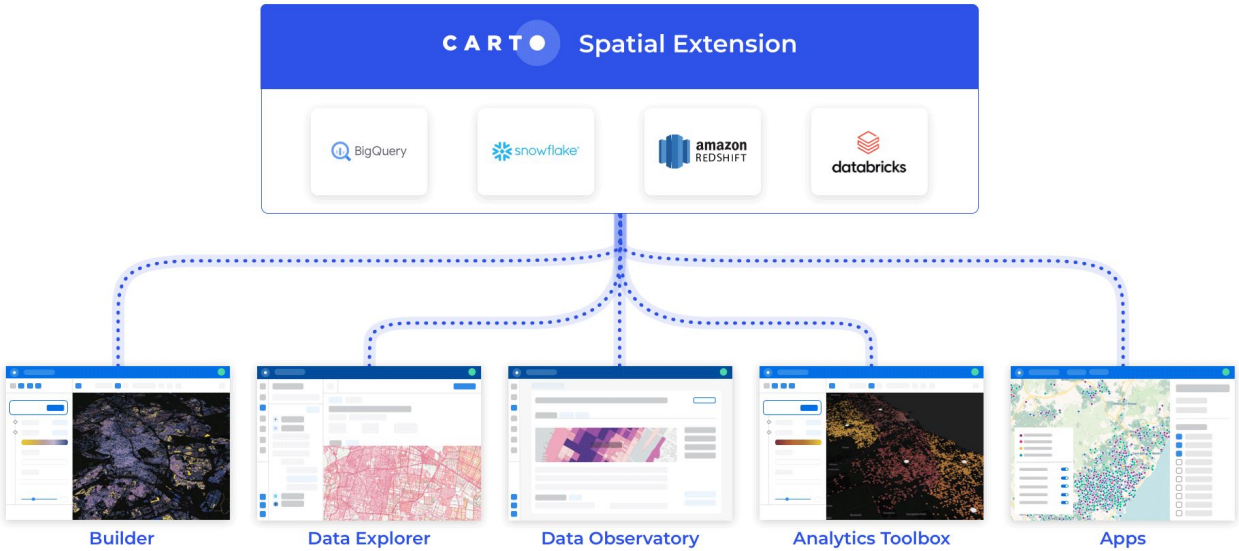
**Lead Data Scientist at CARTO**

# 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

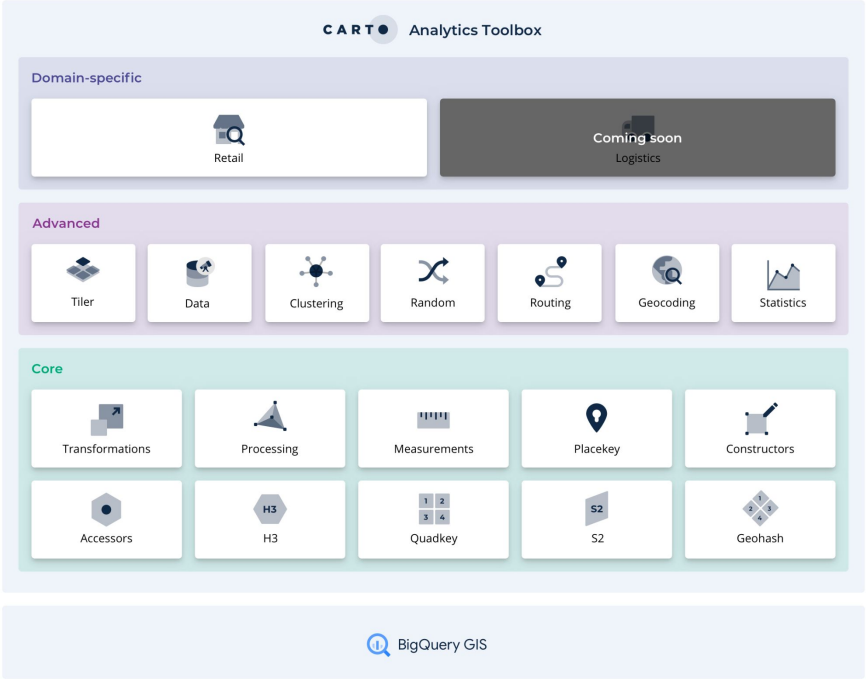
CARTO now brings together cloud connectivity, visualization, spatial analysis and development capabilities in a unified workspace.



# 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).

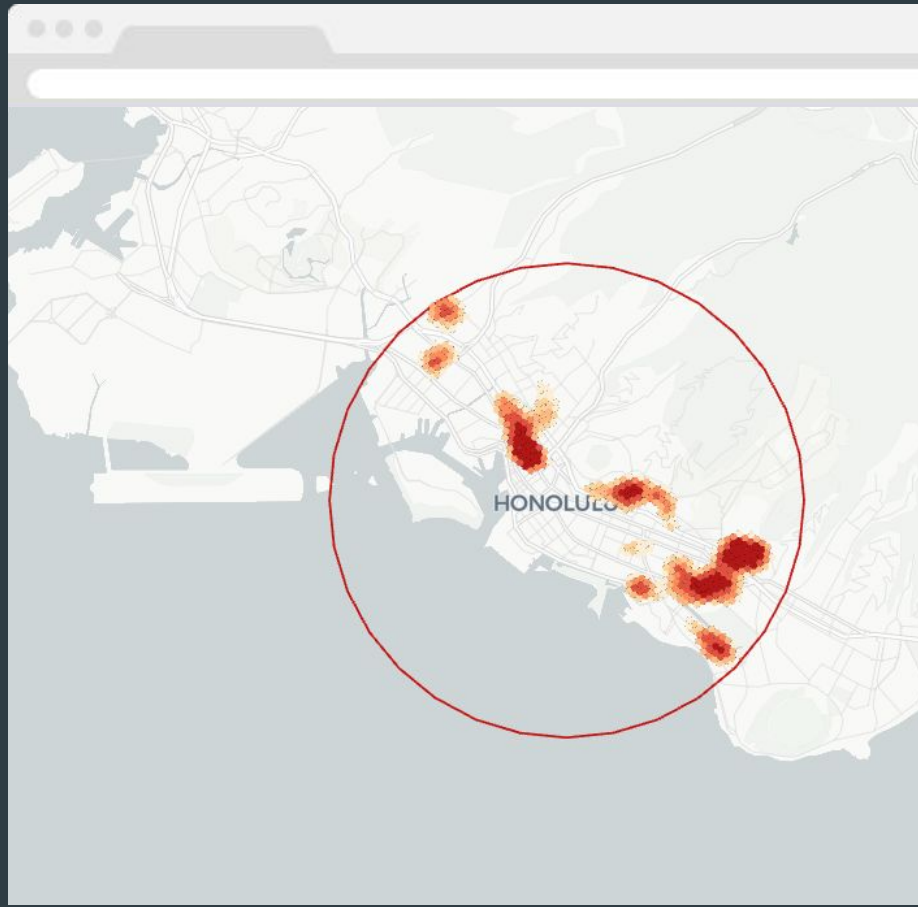


# Analytics Toolbox - Retail module

# COMMERCIAL HOTSPOTS

Find hotspots according to a set of weighted variables

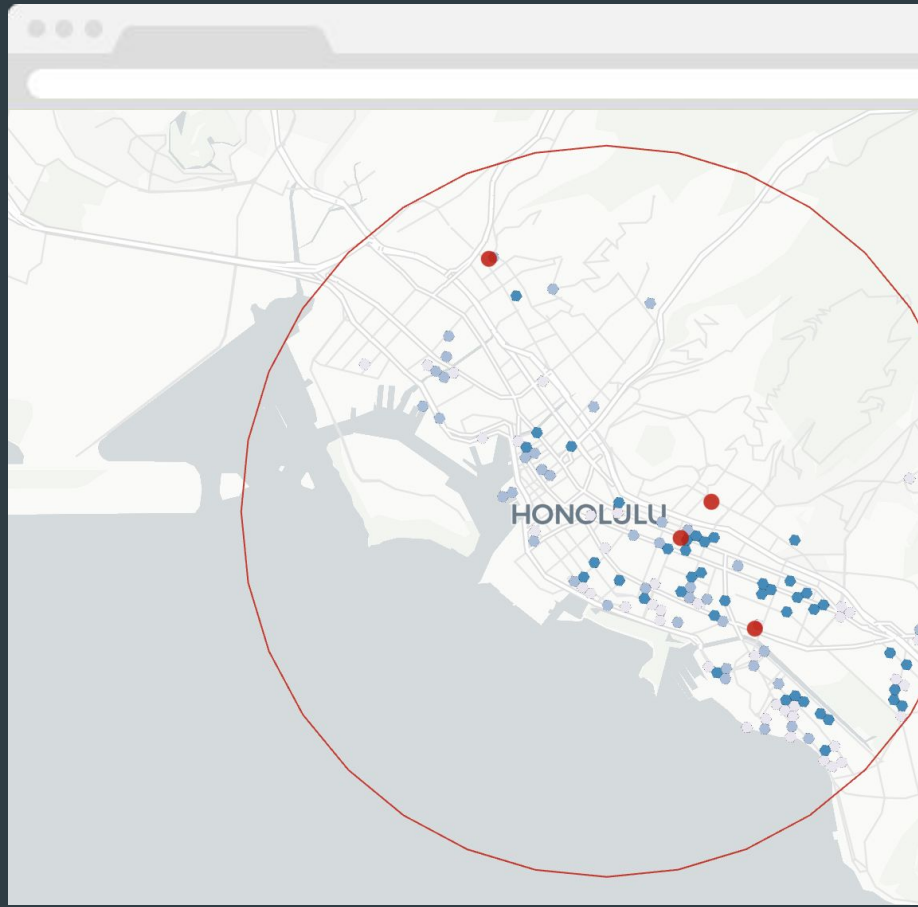
→ Documentation



# TWIN AREAS

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

→ Documentation



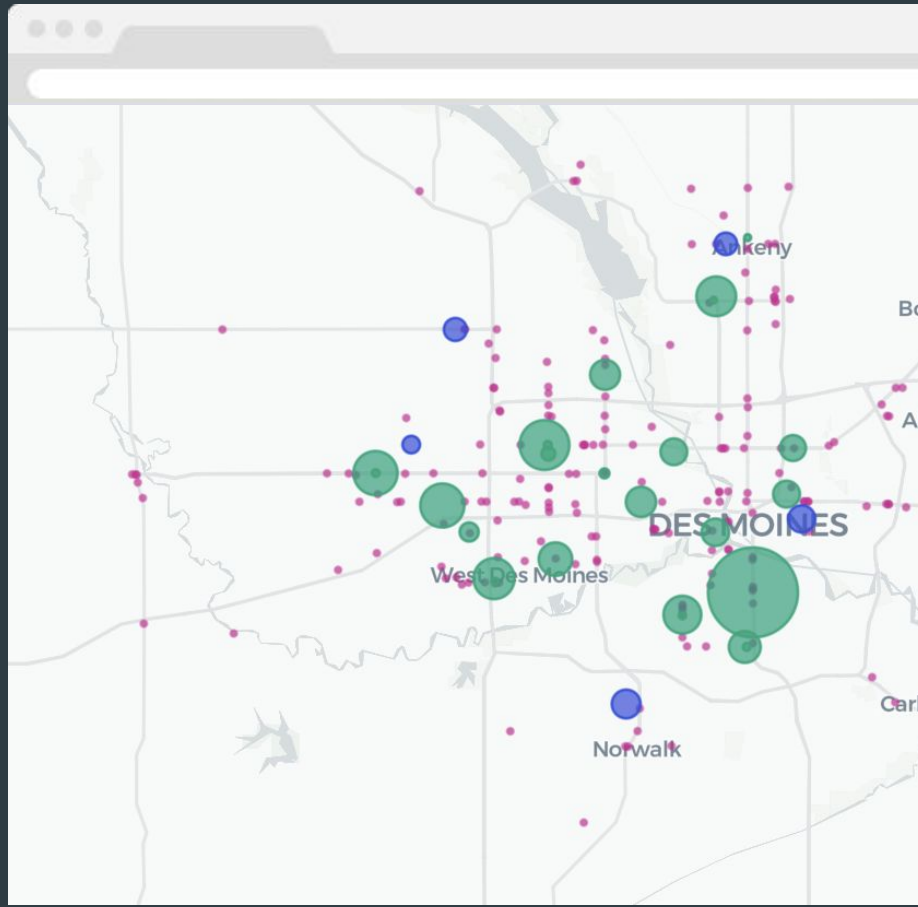
# REVENUE PREDICTION

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

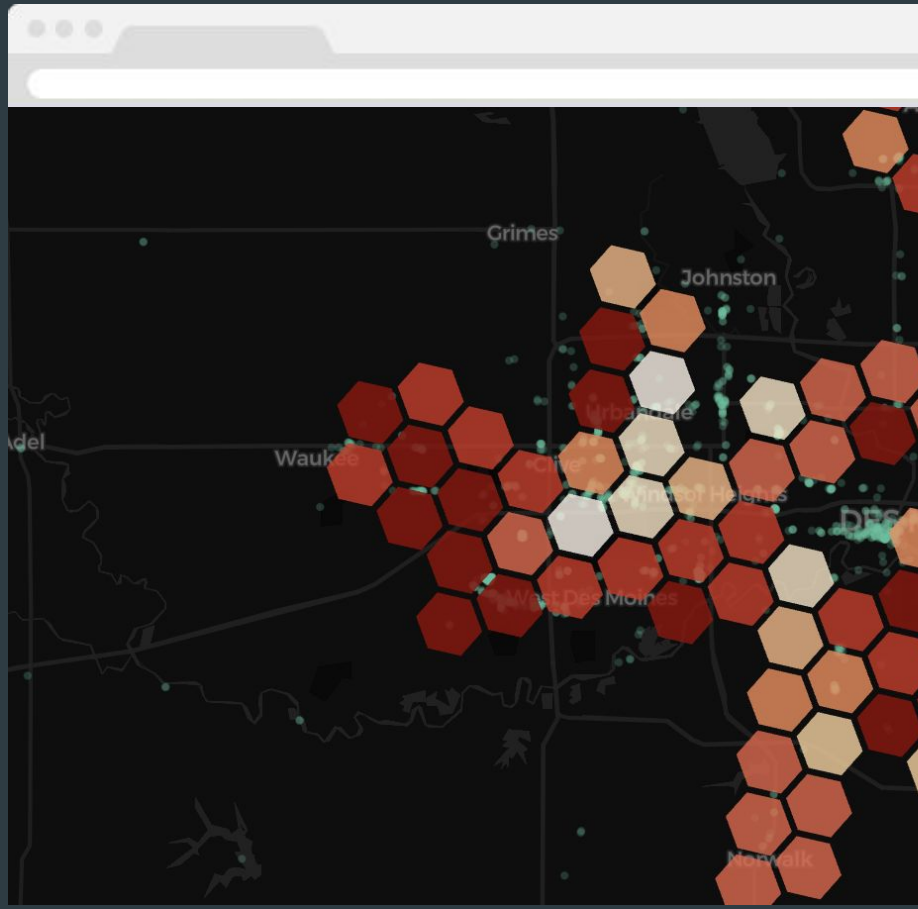



Read our blog post on revenue prediction!

# WHITESPACE ANALYSIS

Find the best locations for opening a new store

→ Documentation

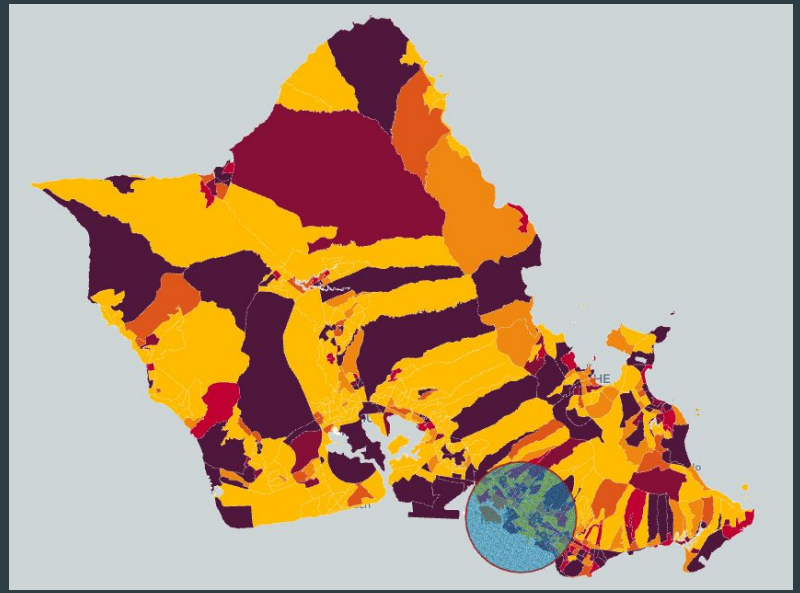



Read our blog post on whitespace analysis!

# 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!


https://bit.ly/3FTtZ6i

# Thanks for listening!
# Any questions?

**Miguel Alvarez**
Lead Data Scientist | malvarez@carto.com

CARTO