CARTO

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CARTOframes

A Python Library for Spatial Data Science

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Follow along at
https://github.com/arredond/odsc-e19

“Spatial is special”

...is it really?

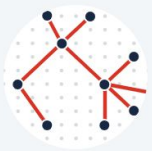
HOW IT WORKS

CARTO turns your Location Data Into Business Outcomes

Whether it's more efficient delivery routes, strategic store placements or targeted geomarketing campaigns - CARTO makes it simple in 5 key steps:

Data Ingestion

Data Enrichment



Analysis

Solutions & Visualization

Integrations

Follow along at
https://github.com/arredond/odsc-e19

```
pip install --pre cartoframes
```

Follow along at
https://github.com/arredond/odsc-e19

```
import cartoframes
cartoframes.__version__
```

```
'1.0b5'
```

https://github.com/CartoDB/cartoframes

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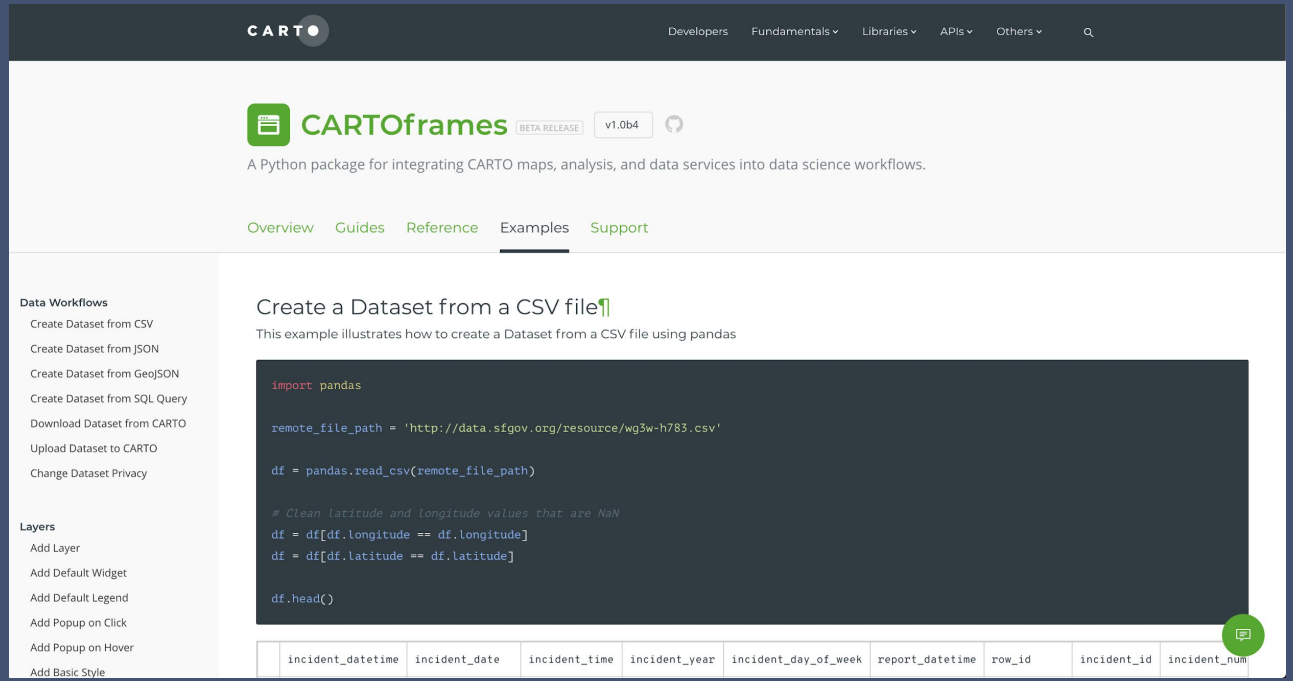


https://carto.com/developers/cartoframes/examples/

CARTOframes: only visualization?

```
Map().publish()
```

Communicating Results

```
map_viz.publish(
    name='sustainable_palm_oil_production_mills_map',
    password='112358'
)
```

```
{
 'id': 'cd919833-5bcd-47a5-a1b5-f66c5d390304',
 'url':'https://team.carto.com/u/johnsmith/kuviz/cd919833-5bcd-f66c5304',
 'name': 'sustainable_palm_oil_production_mills_map',
 'privacy': 'private'
}
```

Data Enrichment

A one-stop shop for spatial data

HOW IT WORKS

CARTO offers a wide range of datasets from around the globe accessible through Data Observartory, our spatial data repository. Select the data category and country you're interested in and you'll see what we've got available.

- Financial
- Human Mobility
- Demographics
- Housing
- Road Traffic
- Points of Interest
- Environmental
- Global Boundaries

Data Enrichment

```
from cartoframes.data.observatory import CatalogDataset
from cartoframes.data.observatory import Enrichment
from geopandas as gpd

original_df = gpd.read_file(file) # Point Data

# Discovery

dataset =
CatalogDataset.get('carto-do-public-data.usa_acs.demographics_acs_usa_censust
ractclipped_2015_5yrs_20132017')

dataset.is_public_data
# True

dataset.variables.get('no_cars_d19dfd10')  # dataset.variables
# <Variable('no_cars_d19dfd10','The number of households without car')>
```

Data Enrichment

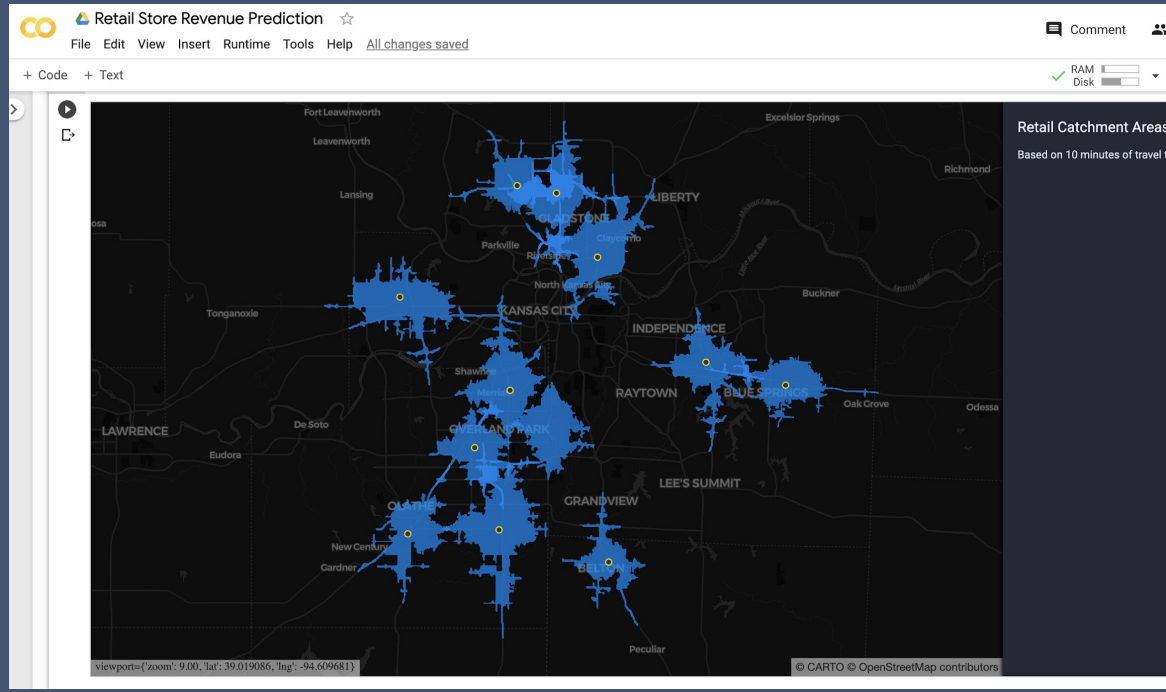
```
from cartoframes.data.observatory import CatalogDataset
from cartoframes.data.observatory import Enrichment
from geopandas as gpd



# Enrichment

enrichment = Enrichment()
enriched_dataset_df = enrichment.enrich_points(
    original_df,
    variables=['no_cars_d19dfd10']
)
```

Location Based Services

Location Based Services

```
# Geocoding
gc = Geocoding()
geocoded_dataframe, info =
gc.geocode(df,
           street='address',
           city='city',})
```

```
# Isochrone (second)
iso_service = Isolines()
isochrones =
iso_service.isochrones(
geocoded_dataframe,
[600, 900, 1200, 1500, 1800],
mode='car)
```



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Thank you!

Feedback form:
http://bit.ly/CF-feedback

Sign up: https://carto.com/signup

Student?
https://education.github.com/pack