WILD CODE SCHOOL

Dash

Your Data Projects at everyone's fingertips

About your Speaker

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- Senior Data Scientist - Europe
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WILD CODE SCHOOL

THE BRAIN AND I

Which one is more eye-catching?

VS

```
                    html.H1('AirBnB places in Lisbon', style = {'margin-top': '50px', 'margin-bo
                    ]
                ), width={"size": 6, "offset": 3})
            ),

            dbc.Row([
                dbc.Col(html.Div("Insert the amount of neighborhoods to display:"), width = 4),
                dbc.Col(html.Div(dbc.Input(value = '6', id = 'n-neigh-filter', type="text")), wi
            ], style = {'margin-left': '7px', 'margin-top': '7px'}),
            dcc.Graph(id = 'price-per-neigh', className="m-4"),
        ])
    )

# Callbacks
@app.callback(
    Output(component_id = 'price-per-neigh', component_property = 'figure'),
    Input(component_id = 'n-neigh-filter', component_property = 'value')
)
def update_price_per_neigh(n_neigh):

    n_neigh = int(n_neigh)

    # Filtering dataset
    neigh_list = airbnb.groupby('neighborhood').agg({'overall_satisfaction': 'count'})\
                       .sort_values('overall_satisfaction', ascending = False)[:n_neigh].index
    airbnb_cut = airbnb[airbnb['neighborhood'].isin(neigh_list)]

    # Building figure
    ppn_fig = px.box(airbnb_cut, x="neighborhood", y="price")

    return ppn_fig
```

Content

- Why we need an GUI
- Intro to GUI solutions in Python
- Dash Overview
- Build a small project

Why GUIs?

We already know how to build a Machine Learning / Deep Learning model.

Why do we need more?

Main App Frameworks in Python

Web App

Total Python

plotly | Dash

Streamlit

A bit of JS

Flask
web development,
one drop at a time

django

Desktop App

What's Dash

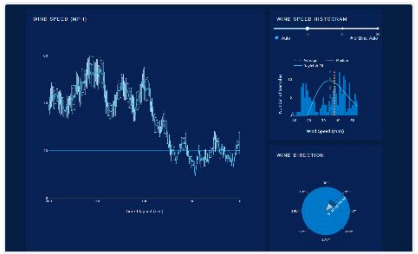
Dash is the low code framework for building Data Apps.

Real-Time Object Detection

Image Processing | AI | ML | Computer Vision | (+1)

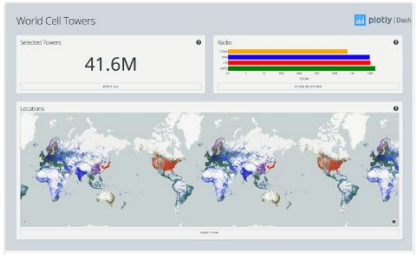
Manufacturing SPC Dashboard

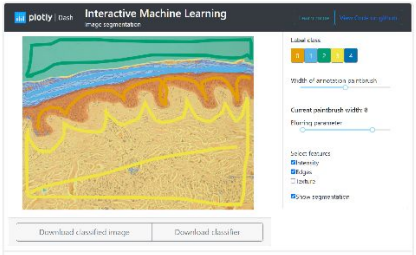
Streaming | DAQ | Manufacturing

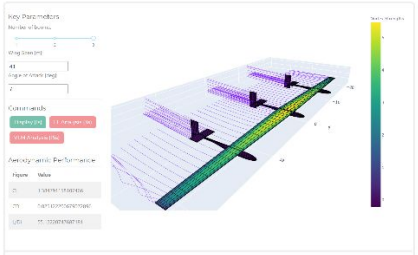


Wind Speed Dashboard for ...

Streaming | SQL | Energy







Source

Small Project - Data

For this project, we are going to use the Airbnb Lisbon Dataset.

Let's have a **visualization** of the **price** by neighborhoods, from the **neighborhood with the highest overall rating**. We can decide how many neighborhoods display

Find the code here

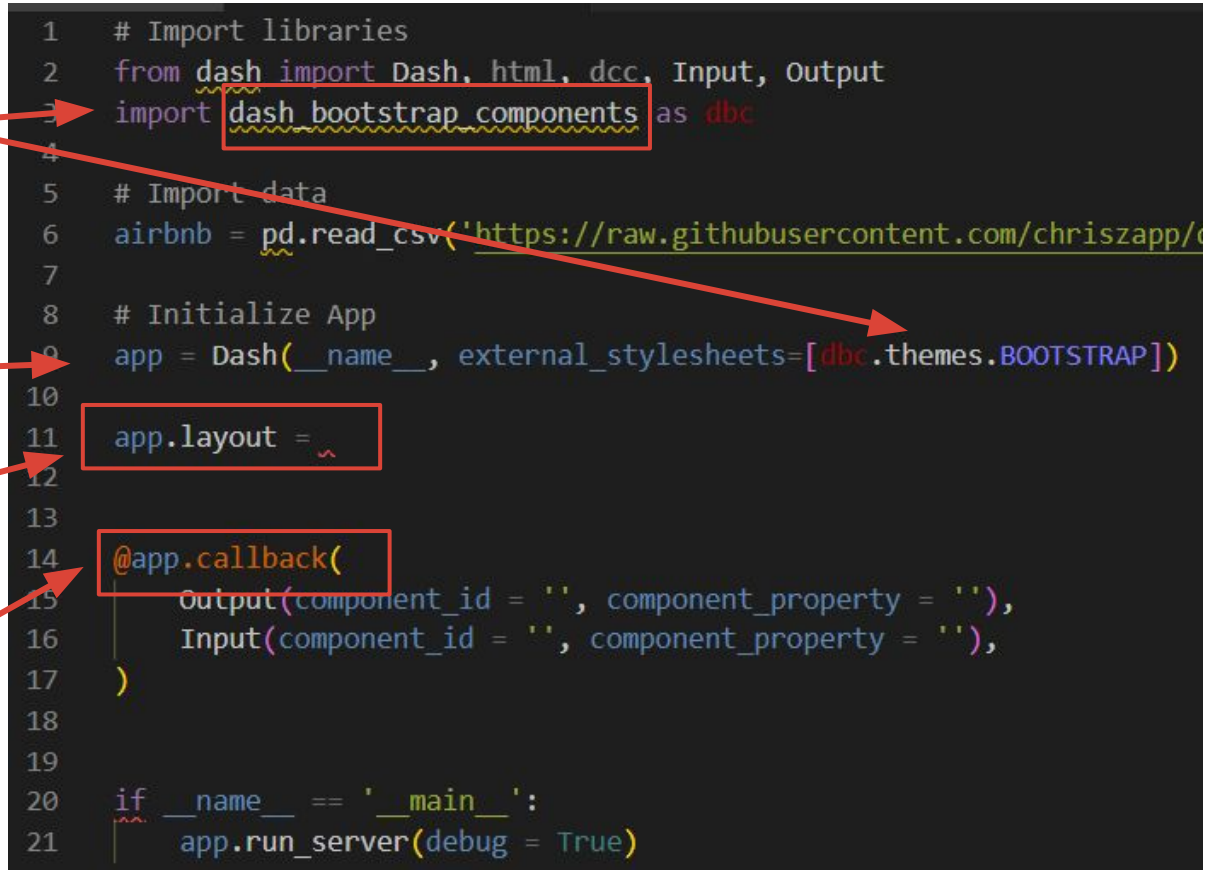
Code Main Components

Use Bootstrap for style

Initialize App

Code how it is

Code how it works



Layout & Callbacks

```
14  app.layout = html.Div(
15      dbc.Container(
16          [
17              html.H1('Distribution of Price per Neigh'),
18              dbc.Row([
19                  dbc.Col(html.Div("Insert the amount of neighborhood to display:"), width = 4),
20                  dbc.Col(html.Div(dbc.Input(value = '6', id = 'n-neigh-filter', type="text")), width = 6),
21              ], className="m-6"),
22              dcc.Graph(id = 'price-per-neigh', className="m-4"),
23          ])
24      )
25
26
27  @app.callback(
28      Output(component_id = 'price-per-neigh', component_property = 'figure'),
29      Input(component_id = 'n-neigh-filter', component_property = 'value')
30  )
31  def update_price_per_neigh(n_neigh):
32
33      n_neigh = int(n_neigh)
```

Let's have a closer look

Thank you for your attention