APSC 1001

Introduction to Engineering for Undeclared Majors

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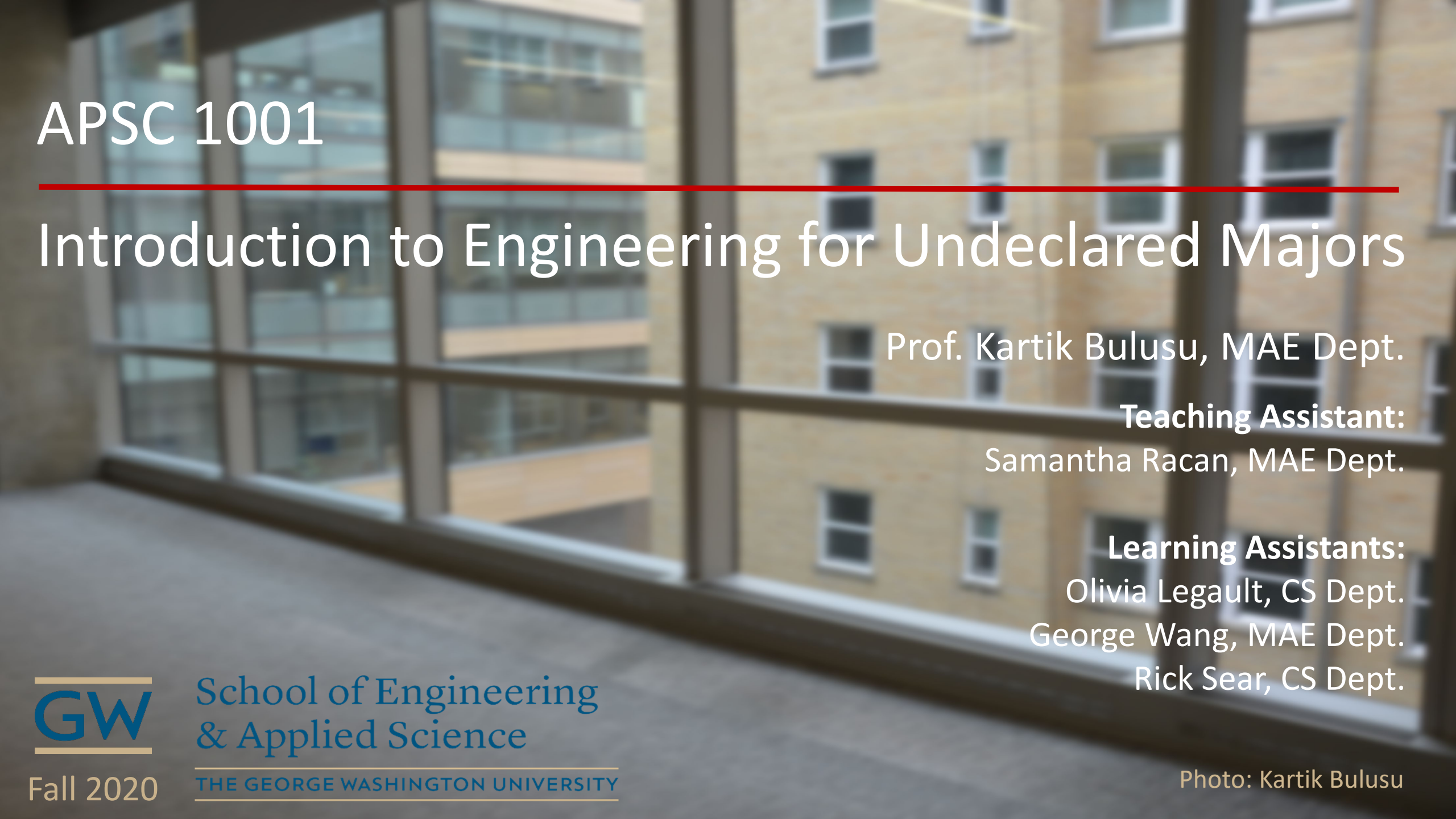

Photo: Kartik Bulusu

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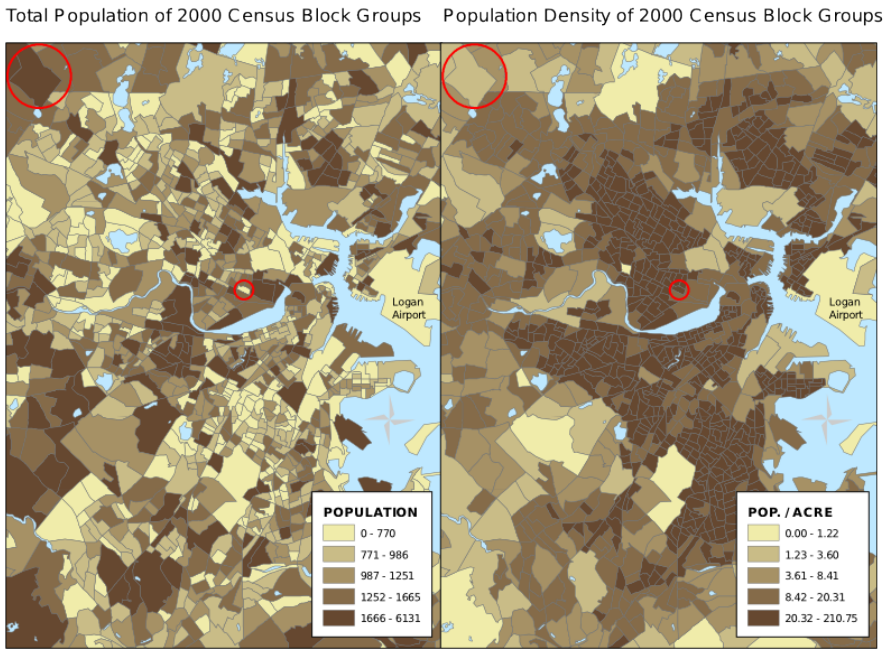
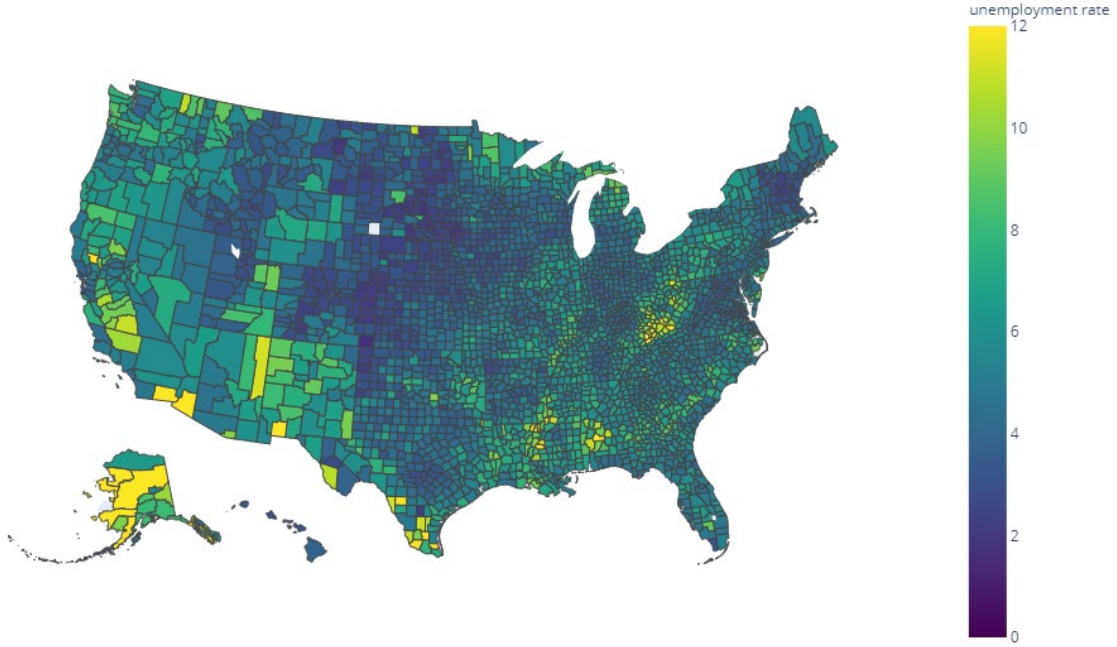
What is a Choropleth ?

A **choropleth map** (from Greek χῶρος "area/region" and πλῆθος "multitude")

- thematic map in which areas are shaded or patterned
- in proportion to a statistical variable
- that represents an aggregate summary of a geographic characteristic within each area.

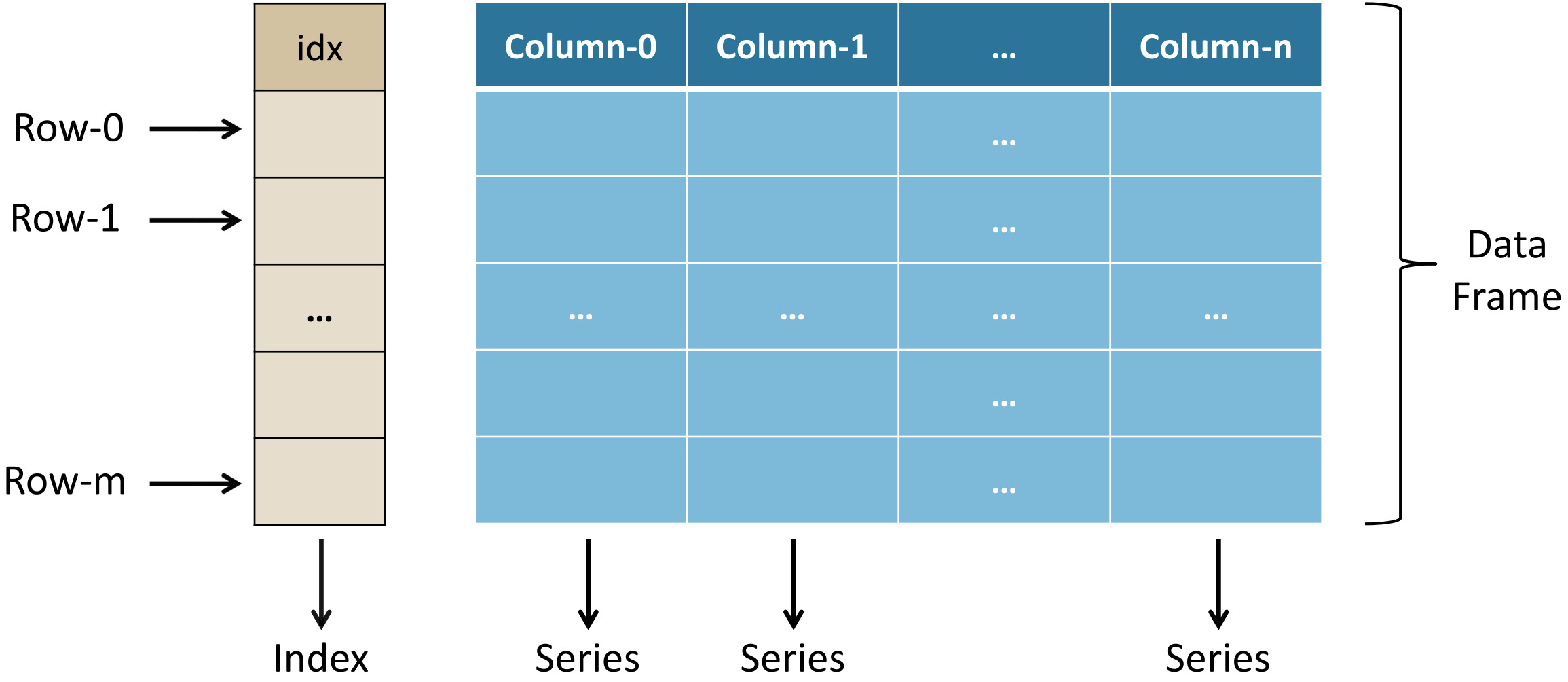




References: https://plotly.com/python/choropleth-maps/
https://en.wikipedia.org/wiki/Choropleth_map#:~:text=A%20choropleth%20map%20(from%20Greek,density%20or%20per%2Dcapita%20income.

Typical Pandas Data Frame

```
import pandas as pd
df = pd.read_csv();
print(df)
```



Very basic choropleth code structure

```
import plotly.express as px
import pandas as pd


owid_df = pd.read_csv('owid-covid-data.csv')


fig = px.choropleth(owid_df_cleaned, locations="iso_code",
                    color="new_cases",
                    hover_name="location",
                    animation_frame="date",
                    title = "Daily new COVID cases from
                       01/01/2020 to 08/30/2020",
          color_continuous_scale=px.colors.sequential.PuRd,
                    range_color = [0, 60000],
                    projection = "natural earth")
#fig["layout"].pop("updatemenus")
fig.show()
```

Definitely read more on https://plotly.com/python/choropleth-maps/#choropleth-map-with-plotlyexpress