

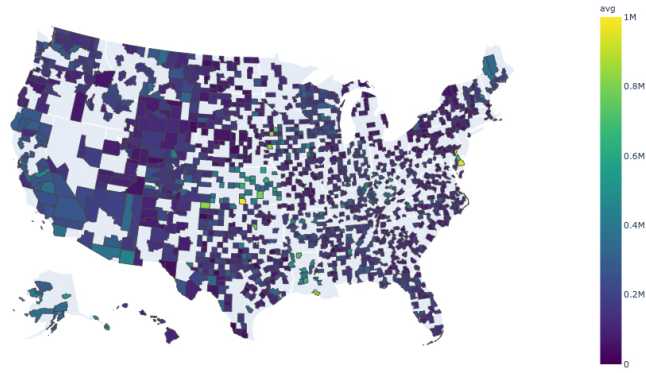
```
In [3]: import pandas as pd
df = pd.read_csv('Zip_zhvi_SingleFamilyResidence.csv', encoding='latin-1', dtype={'RegionName': str})
df['avg'] = df.mean(axis=1)

In [4]: from urllib.request import urlopen
import json
import plotly.express as px

with urlopen('https://raw.githubusercontent.com/plotly/datasets/master/geojson-counties-fips.json') as response:
    counties = json.load(response)

fig = px.choropleth(df, geojson=counties, locations='RegionName', color=df['avg'],
                    color_continuous_scale='Viridis',
                    range_color=(0, 1000000),
                    scope='usa',
                    labels={'unemp': 'unemployment rate'})

fig.update_layout(margin={'r':0,'t':0,'l':0,'b':0})
fig.show()
```



```
In [11]: df.head()

Out[11]:
```

	RegionID	RegionName	City	State	Metro	CountyName	SizeRank	1996-04	1996-05	1996-06	...	2019-04	2019-05	2019-06	2019-07	2019-0
0	61639	10025	New York	NY	New York-Newark-Jersey City	New York County	1	NaN	NaN	NaN	...	1386270	1394397	1404225	1406599	139991
1	84654	60657	Chicago	IL	Chicago-Naperville-Elgin	Cook County	2	355664.0	354736.0	355404.0	...	967557	965155	960225	956709	95309
2	61637	10023	New York	NY	New York-Newark-Jersey City	New York County	3	NaN	NaN	NaN	...	1526676	1525174	1516721	1504180	149208
3	91982	77494	Katy	TX	Houston-The Woodlands-Sugar Land	Harris County	4	197907.0	196854.0	195911.0	...	335035	334542	334176	334363	33412
4	84616	60614	Chicago	IL	Chicago-Naperville-Elgin	Cook County	5	537402.0	536919.0	539044.0	...	1203423	1204840	1199747	1194591	118870

5 rows x 293 columns

```
In [12]: df['avg'] = df.mean(axis=1)
by_state = pd.DataFrame(df.groupby('State')['avg'].mean())
by_state.reset_index(inplace=True)
by_state.head()

Out[12]:
```

	State	avg
0	AK	219656.996282
1	AL	106281.749229
2	AR	77504.733709
3	AZ	188098.425818
4	CA	398383.806727

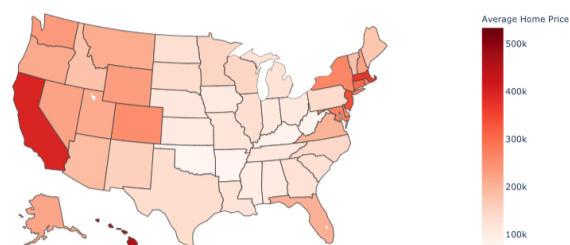
```
In [13]: import plotly
import plotly.graph_objects as go

fig = go.Figure(data=go.Choropleth(
    locations=by_state['State'],
    z=by_state['avg'].astype(float),
    locationmode='USA-states',
    colorscale='Reds',
    colorbar_title="Average Home Price",
))

fig.update_layout(
    title_text="Average Home Price by State",
    geo_scope='usa',
)

fig.show()
```

Average Home Price by State



```
In [ ]:
```