plotting_w_plotly

August 23, 2019

1 Plotting with Plotly

For the second round of interviews, REMAX is requesting that applicants create interactive plots using Plotly Express instead of hvPlot. Create two scatter plots using the provided foreclosure data.

[1]:
```
import plotly.express as px
import pandas as pd
from pathlib import Path
```

1.1 Plot Foreclosures

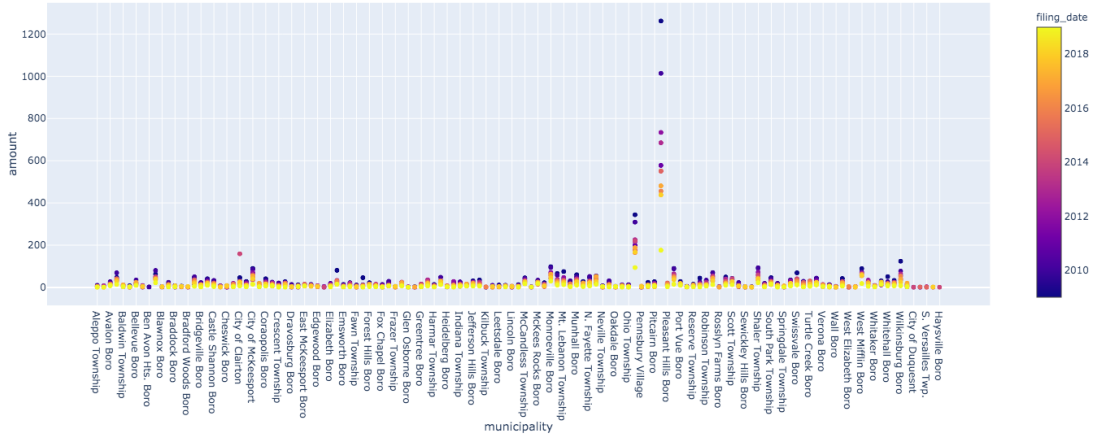
[2]:
```
# Read in data
foreclosures = pd.read_csv(
    Path("../../Resources/alleghany_foreclosures.csv"),
    infer_datetime_format=True,
    parse_dates=True,
    index_col="filing_date",
)

# Slice data and group
foreclosures_grp = (
    foreclosures[["municipality", "amount"]]
    .groupby([foreclosures.index.year, "municipality"])
    .count()
    .reset_index()
)
foreclosures_grp.head()
```

[2]:

	filing_date	municipality	amount
0	2009	Aleppo Township	5
1	2009	Aspinwall Boro	4
2	2009	Avalon Boro	22
3	2009	Baldwin Boro	47
4	2009	Baldwin Township	11

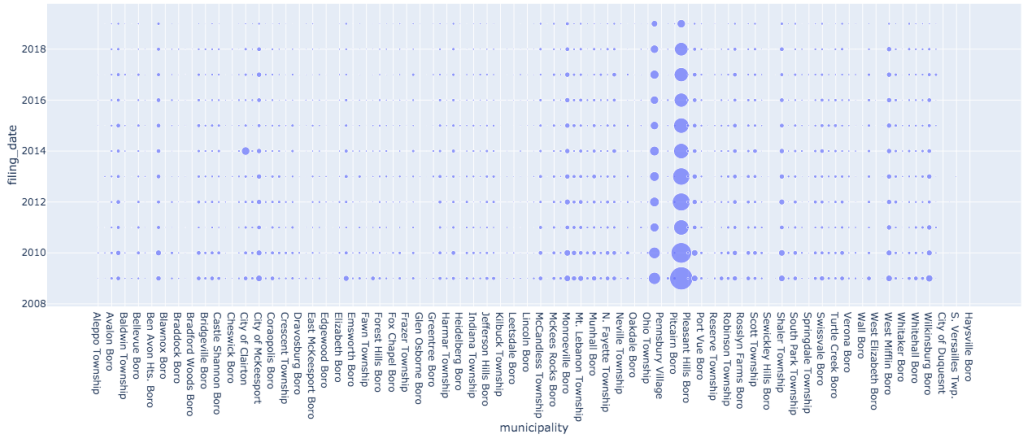
1.1.1 Plot relationship between municipality and the number of foreclosures

[3]:
```
# Create scatter plot
px.scatter(foreclosures_grp, x="municipality", y="amount", color="filing_date")
```



1.1.2 Plot the relationship between filing date and municipality

[4]:
```
# Create scatter plot
px.scatter(foreclosures_grp, x="municipality", y="filing_date", size="amount")
```



1.1.3 Plot the progression of foreclosures

[5]:
```
# Create area plot
px.area(
    foreclosures_grp,
    x="filing_date",
    y="amount",
    color="municipality",
    line_group="municipality",
)
```