

Applied Data Analytics

Visualisations with plotly

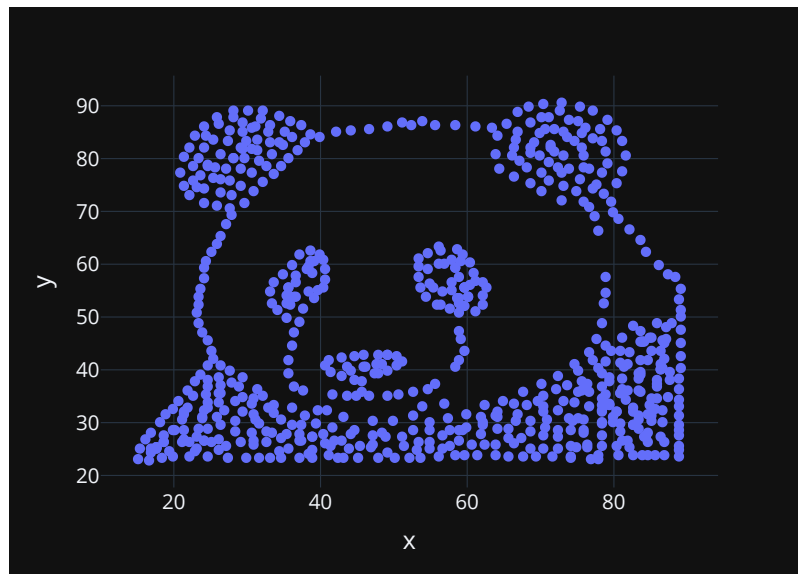
Scatter plots

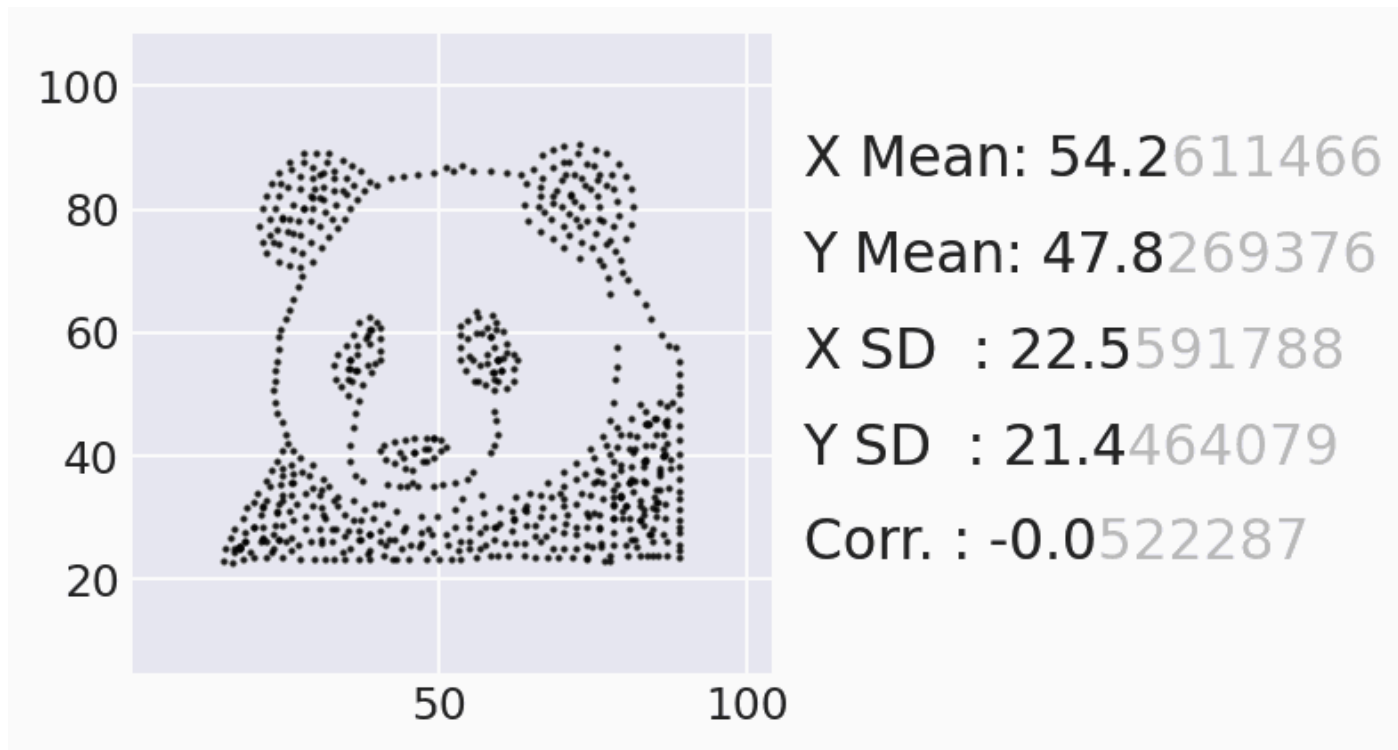
Hans-Martin von Gaudecker and Aapo Stenhammar

Scatter plots

	x	y
0	75.87	71.84
1	78.62	73.34
2	80.37	75.34
...	...	...
686	84.62	28.09
687	82.12	25.34
688	76.37	25.84

```
fig = panda.plot.scatter(x="x", y="y")  
fig.show()
```



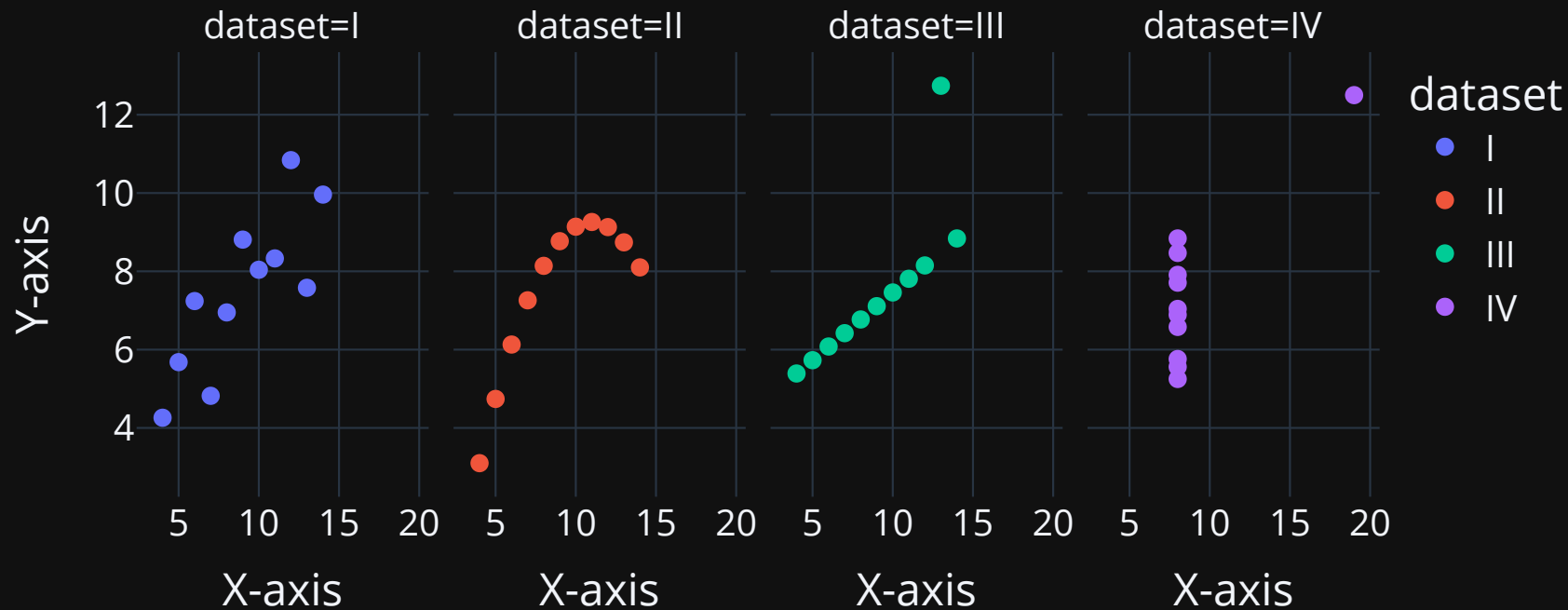


Animation generated using the Data Morph Python library and inspired by the paper "Same Stats, Different Graphs: Generating Datasets with Varied Appearance and Identical Statistics through Simulated Annealing" by Justin Matejka and George Fitzmaurice (ACM CHI 2017).

Anscombe's Quartet

dataset	mean(x)	std(x)	mean(y)	std(y)	corr(x,y)
I	9	3.32	7.5	2.03	0.82
II	9	3.32	7.5	2.03	0.82
III	9	3.32	7.5	2.03	0.82
IV	9	3.32	7.5	2.03	0.82

Anscombe's Quartet



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

# Load Anscombe's quartet dataset
anscombe = sns.load_dataset("anscombe")

# Create scatter plots for each dataset
fig = px.scatter(
    anscombe,
    x="x",
    y="y",
    color="dataset",
    facet_col="dataset",
    title="Anscombe's Quartet",
    labels={"x": "X-axis", "y": "Y-axis"},
    width=900,
    height=300
)

# Show the plot
fig.show()
```