


```
[1] import bokeh
    from bokeh.plotting import figure, output_file, show
```

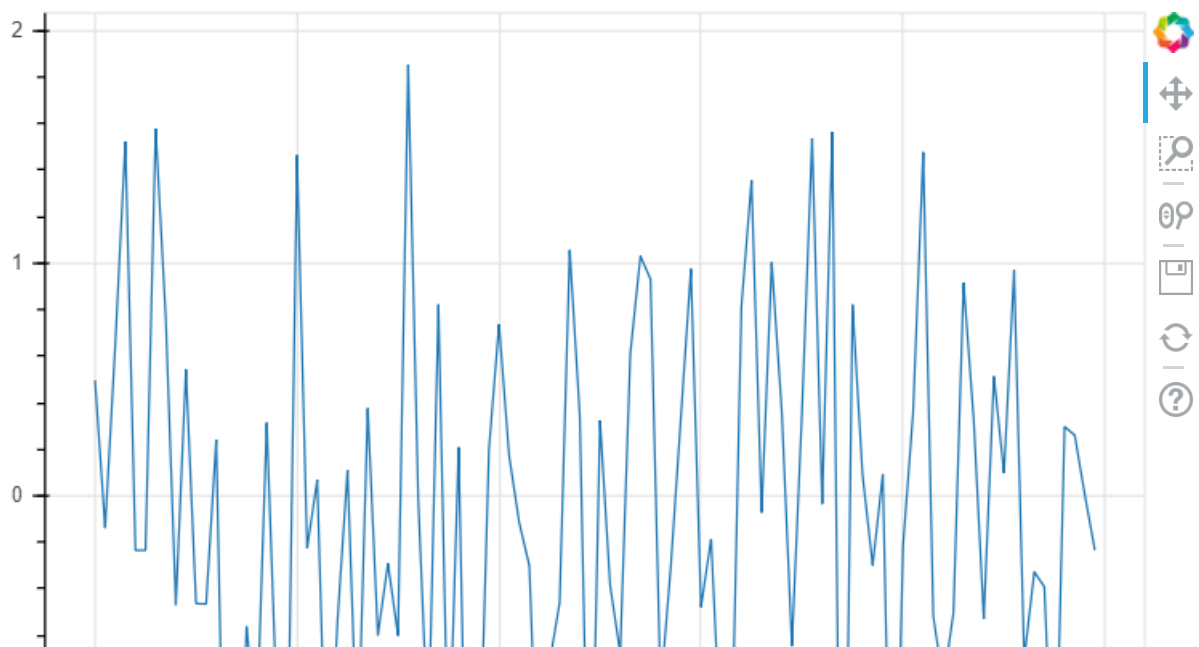
```
[2] import bokeh
    import numpy as np
    from bokeh.models import Circle, ColumnDataSource, Line,
    LinearAxis, Range1d
    from bokeh.plotting import figure, output_notebook, show
    from bokeh.core.properties import value

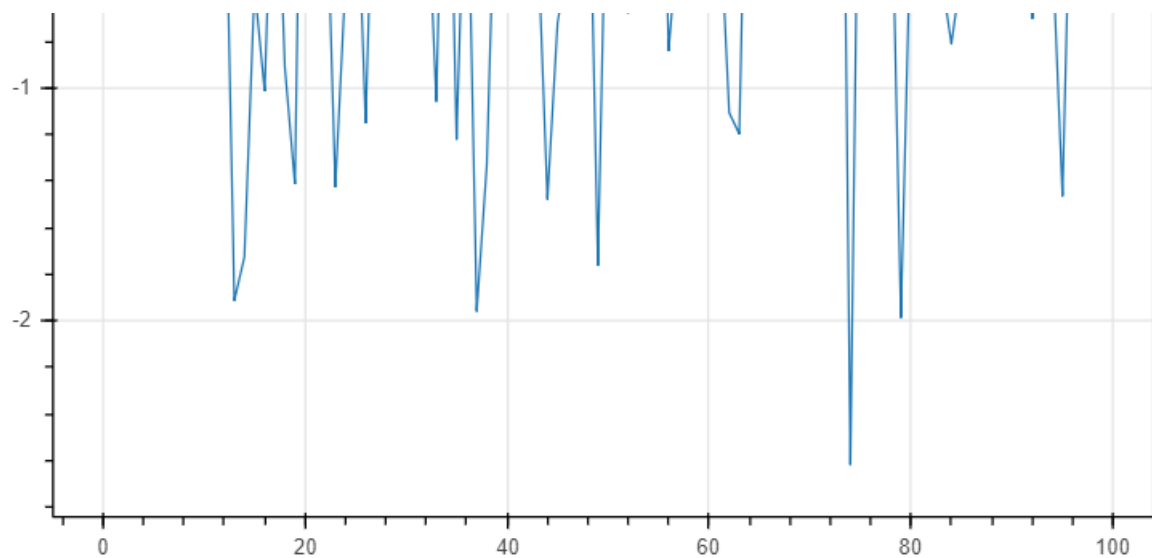
    output_notebook() # output bokeh plots to jupyter notebook
    np.random.seed(42)
```

 BokehJS 1.0.4 successfully loaded.

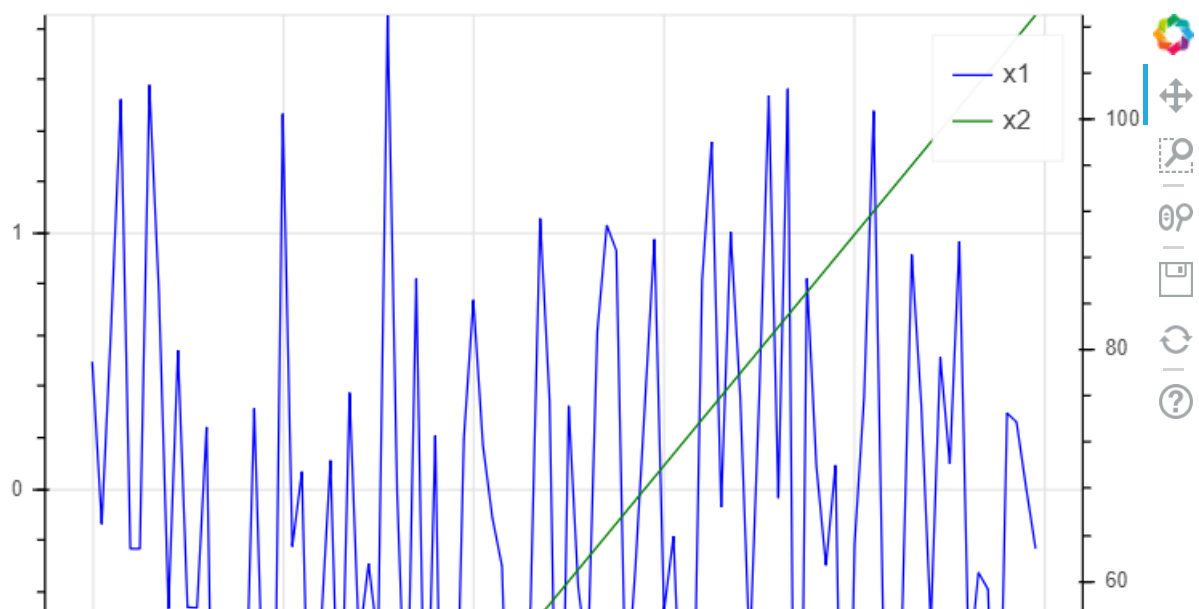
```
[3] N = 100
    data_source = ColumnDataSource(
        data=dict(
            x0=np.arange(N),
            x1=np.random.standard_normal(size=N),
            x2=np.arange(10, N + 10),
            x3=np.random.standard_normal(size=N),
        )
    )
```

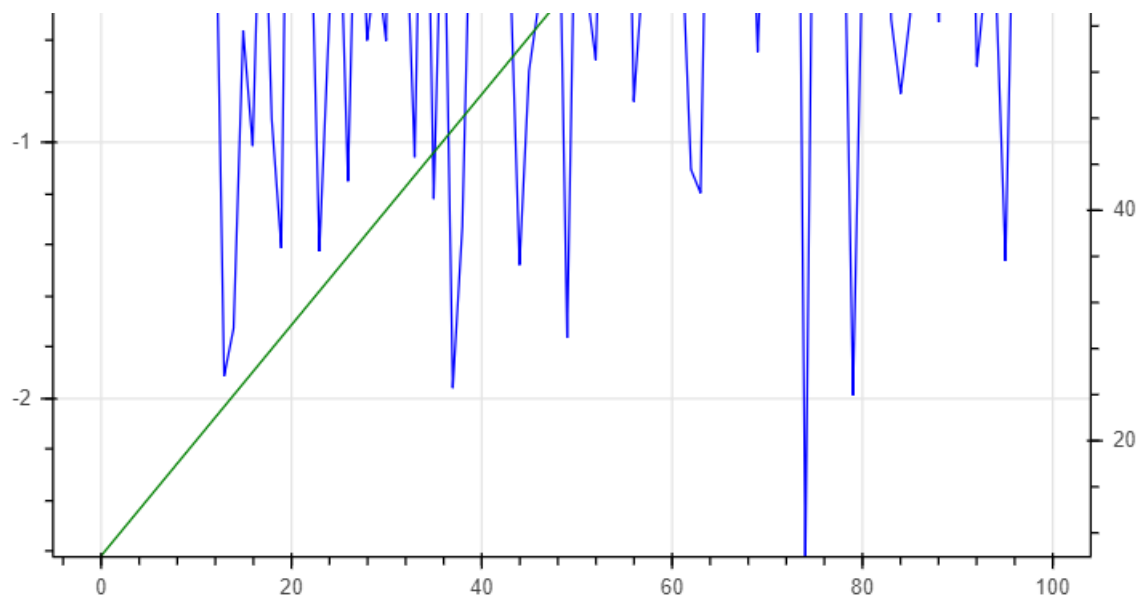
```
[4] p = figure()
    p.line("x0", "x1", source=data_source)
    show(p)
```





```
[5] p = figure()
column1 = "x1"
column2 = "x2"
# FIRST AXIS
p.line("x0", column1, legend=value(column1), color="blue",
source=data_source)
p.y_range = Range1d(data_source.data[column1].min(),
data_source.data[column1].max())
# SECOND AXIS
column2_range = column2 + "_range"
p.extra_y_ranges = {
    column2_range: Range1d(
        data_source.data[column2].min(),
        data_source.data[column2].max()
    )
}
p.add_layout(LinearAxis(y_range_name=column2_range), "right")
p.line("x0", column2, legend=value(column2),
y_range_name=column2_range, color="green",source=data_source)
show(p)
```





```
[6] p = figure()
p.line(x="x0", y="x1",color="blue", source=data_source )
p.circle(x="x0", y="x3",color='green', source=data_source)
show(p)
```

