

bokeh_test

April 28, 2015

1 Just setting up my Bkh

```
In [5]: from bokeh.plotting import figure, output_notebook, show
```

```
In [6]: # prepare some data
```

```
x = [1, 2, 3, 4, 5]
```

```
y = [6, 7, 2, 4, 5]
```

```
output_notebook()
```

```
# create a new plot with a title and axis labels
```

```
p = figure(title="simple line example", x_axis_label='x', y_axis_label='y')
```

```
# add a line renderer with legend and line thickness
```

```
p.line(x, y, legend="Temp.", line_width=2)
```

```
# show the results
```

```
show(p)
```

```
In [7]: from sklearn import datasets
```

```
digits = datasets.load_digits()
```

```
In [29]: import pandas as pd
```

```
from itertools import cycle
```

```
from sklearn import decomposition
```

```
from bokeh.models.sources import ColumnDataSource
```

```
from bokeh.models.tools import HoverTool
```

```
from palettable.tableau import TableauLight_10
```

```
pca = decomposition.RandomizedPCA(copy=True, iterated_power=3, n_components=2, whiten=False)
```

```
pca_proj = pca.fit_transform(digits.data)
```

```
pca_df = pd.DataFrame({'x': pca_proj[:,0],  
                      'y': pca_proj[:,1],  
                      'color': [TableauLight_10.hex_colors[dt] for dt in digits.target],  
                      'target': digits.target})
```

```
pca_src = ColumnDataSource(data=pca_df)
```

```
fig = figure(title='PCA Projection - digits dataset',
```

```
            x_axis_label='c1', y_axis_label='c2',
```

```
            plot_width=750, plot_height=560)
```

```
fig.scatter(source=pca_src, x='x', y='y',
```

```
            size=10, fill_alpha=0.9, line_alpha=0.5, line_color='black',
```

```
        fill_color='color')

hover_tool = HoverTool(tooltips=[("target", "@target"),
                                  ("color", "$color[swatch]:color")],
                        snap_to_data=True)
fig.add_tools(hover_tool)

show(fig)
```

```
In [ ]:
```