alisation in Python

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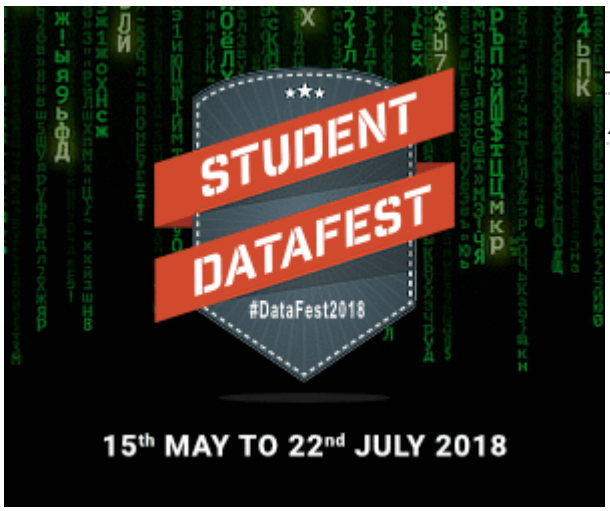
Introduction

It is said 'A visually presented data speaks for itself'. Data, served in the right visual form, brings out hidden trends and insights to enable faster decision making. The importance of right visualization is only set to increase with increasing data.

Python, popular for its ease of writing codes, offers some amazing set of libraries support to create visualization. Not only 2D, it has features to create jaw-dropping 3D visualisations & animations. Here is the cheat sheet for popular visualisation methods used for representing data. You can keep this handy for your use:



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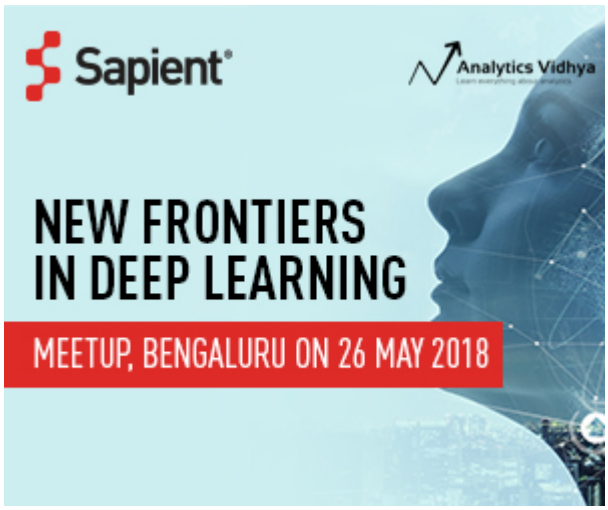

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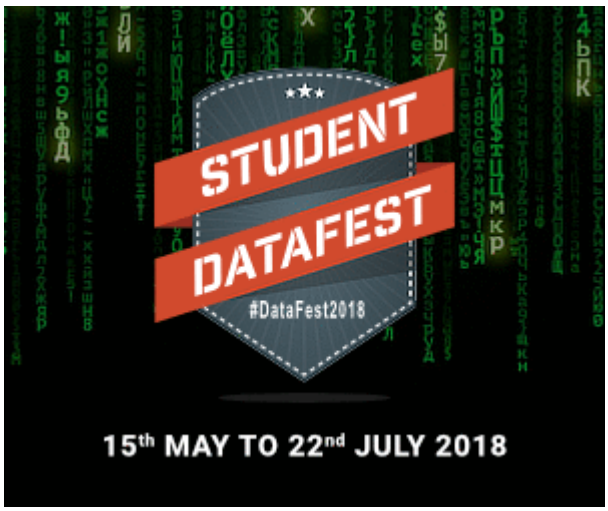

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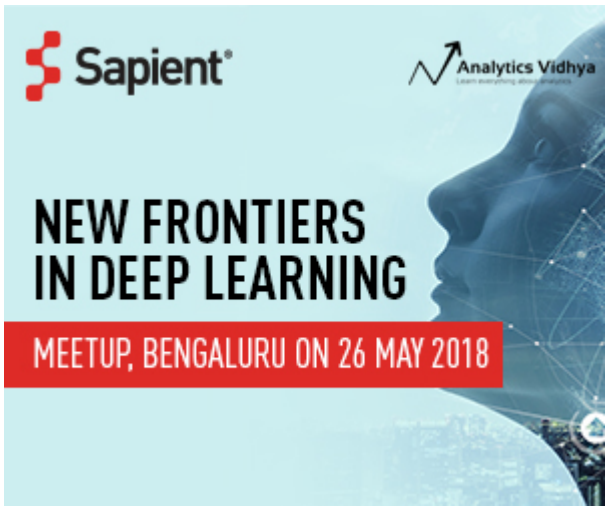

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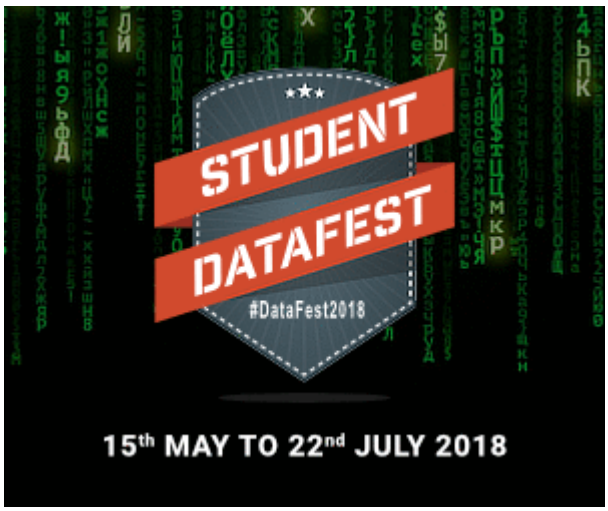

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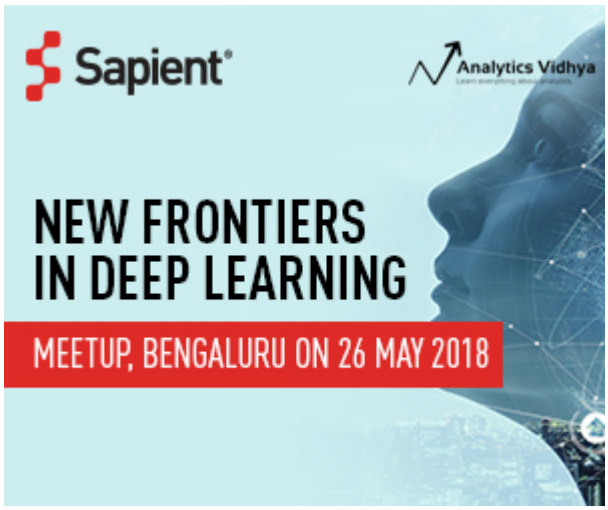

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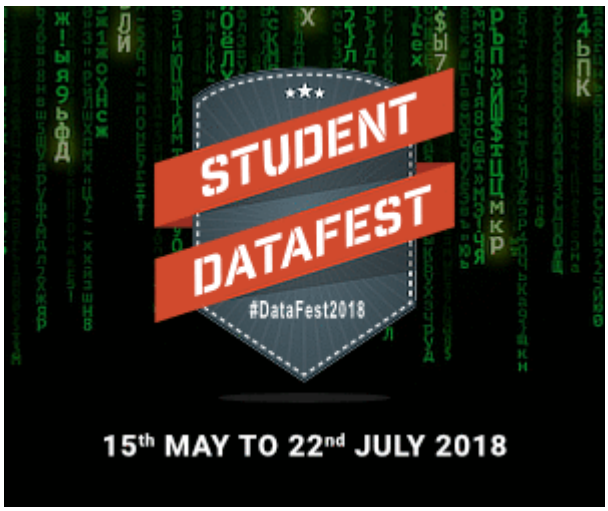

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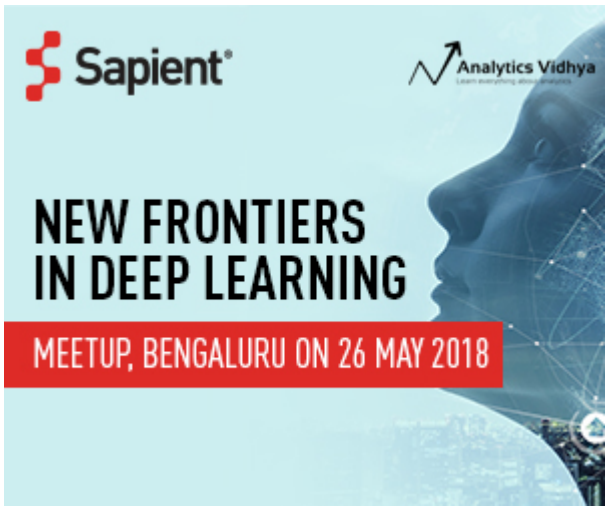

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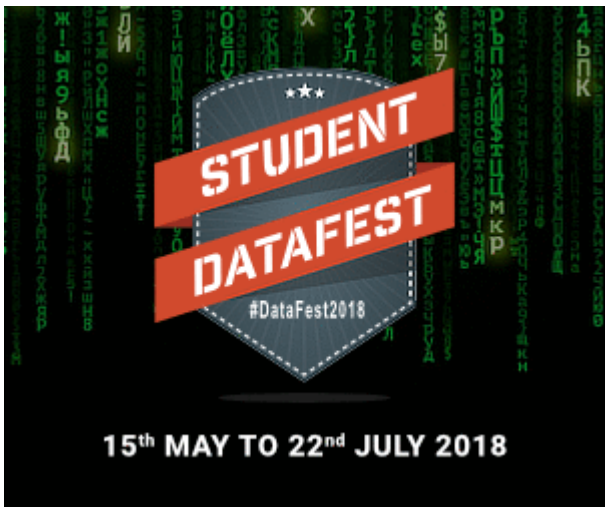

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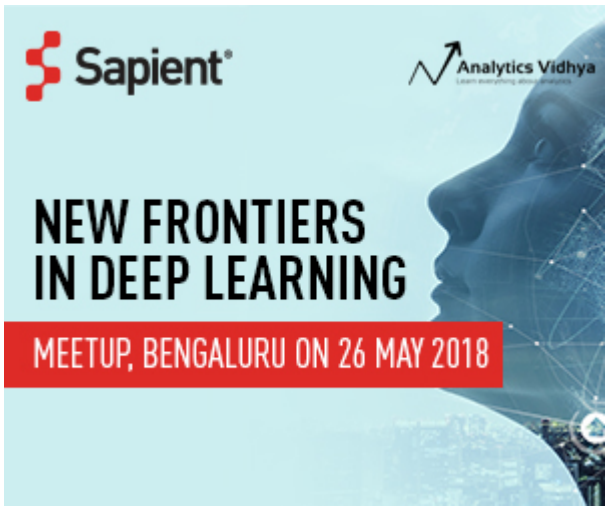

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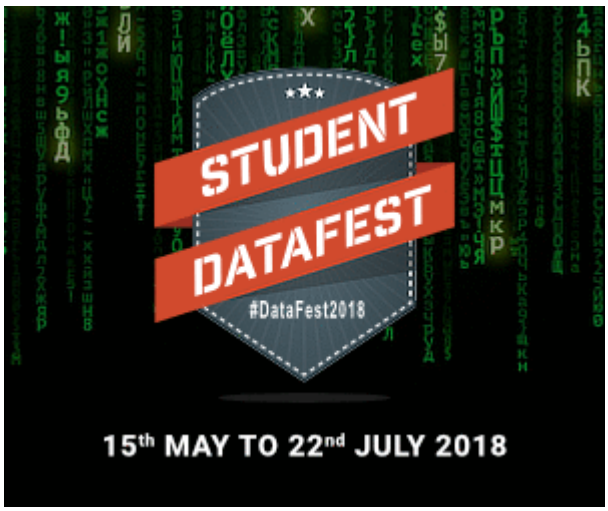

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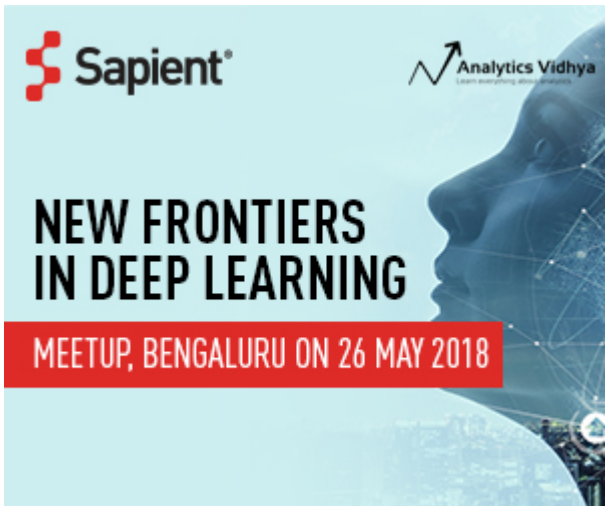

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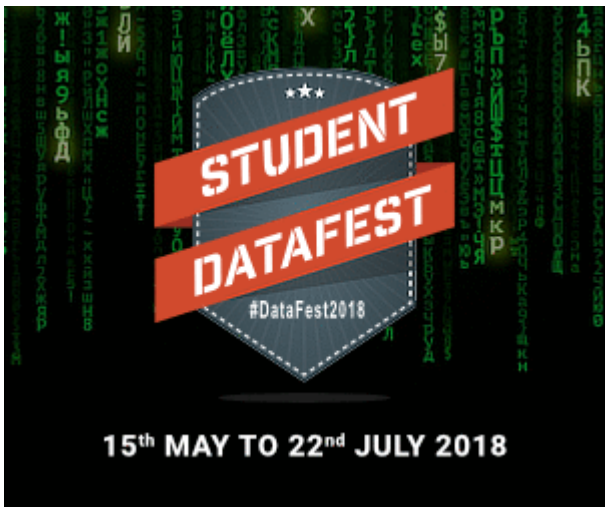

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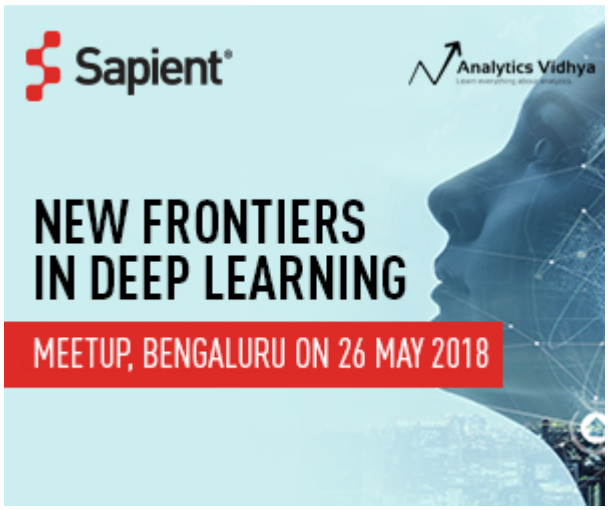

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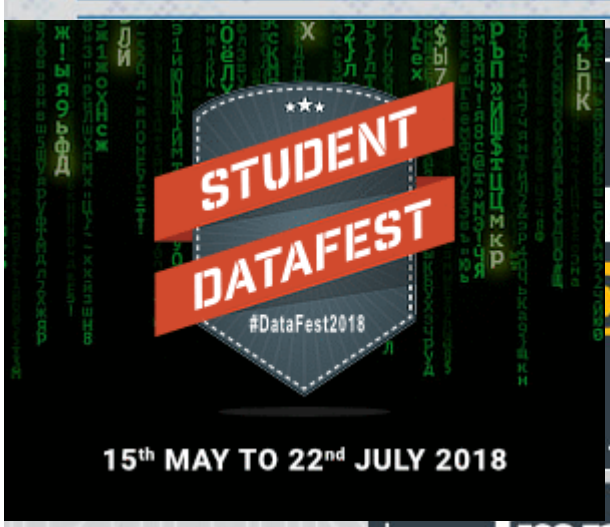
figures in interactive environment across platforms.

linear regression, matrices of data, statistical time series etc which lets us to build complex visualizations.



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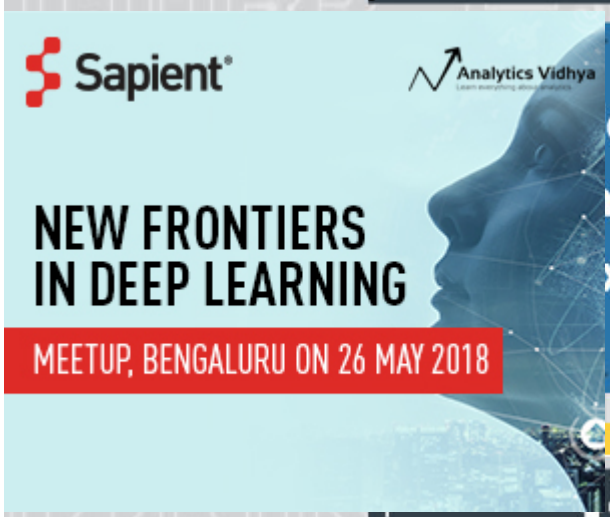
EMPID	Gender	Age	Sales	BMI	Income
E001	M	34	123	Normal	350
E002	F	40	114	Overweight	450
E003	F	37	135	Obesity	169
E004	M	30	139	Underweight	189
E005	F	44	117	Underweight	183
E006	M	36	121	Normal	80
E007	M	32	133	Obesity	166
E008	F	26	140	Normal	120
E009	M	32	133	Normal	75
E010	M	36	133	Underweight	40

Import Data Set:



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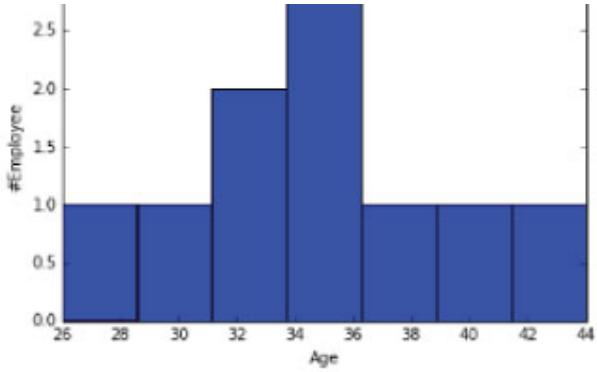
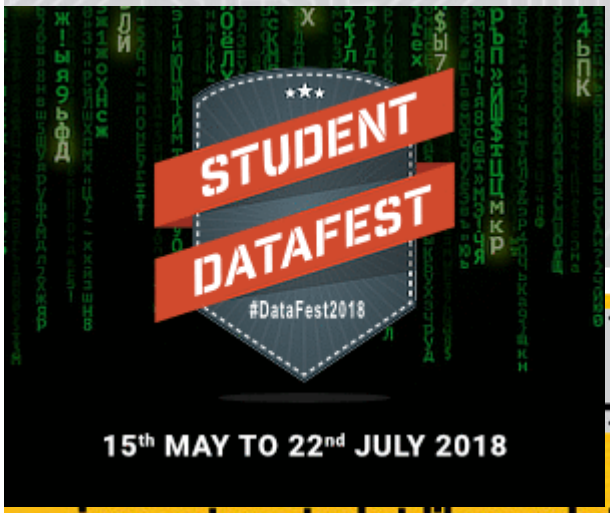
```
otlib.pyplot as plt
s as pd
xcel("E:/First.xlsx", "Sheet1")
```

Histogram

```
fig=plt.figure()
ax = fig.add_subplot(1,1,1)
ax.hist(df['Age'],bins = 7) # Here you can
play with number of bins Labels and Tit
plt.title('Age distribution')
plt.xlabel('Age')
```

```
plt.ylabel('#Employee')
plt.show()
```





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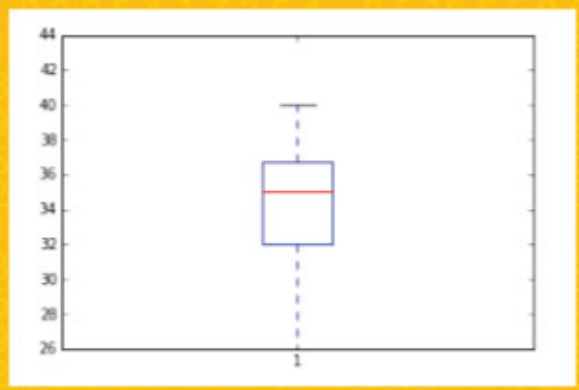
Box Plot

```
import matplotlib.pyplot as plt
import pandas as pd
```



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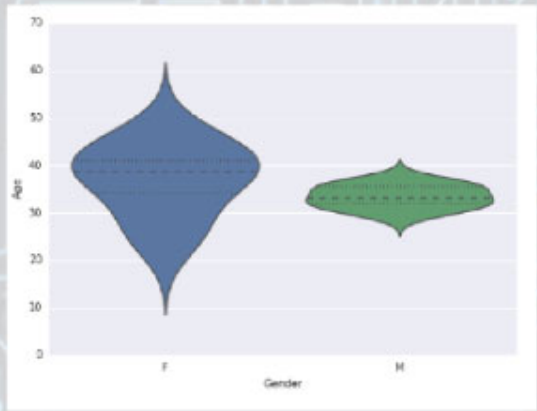
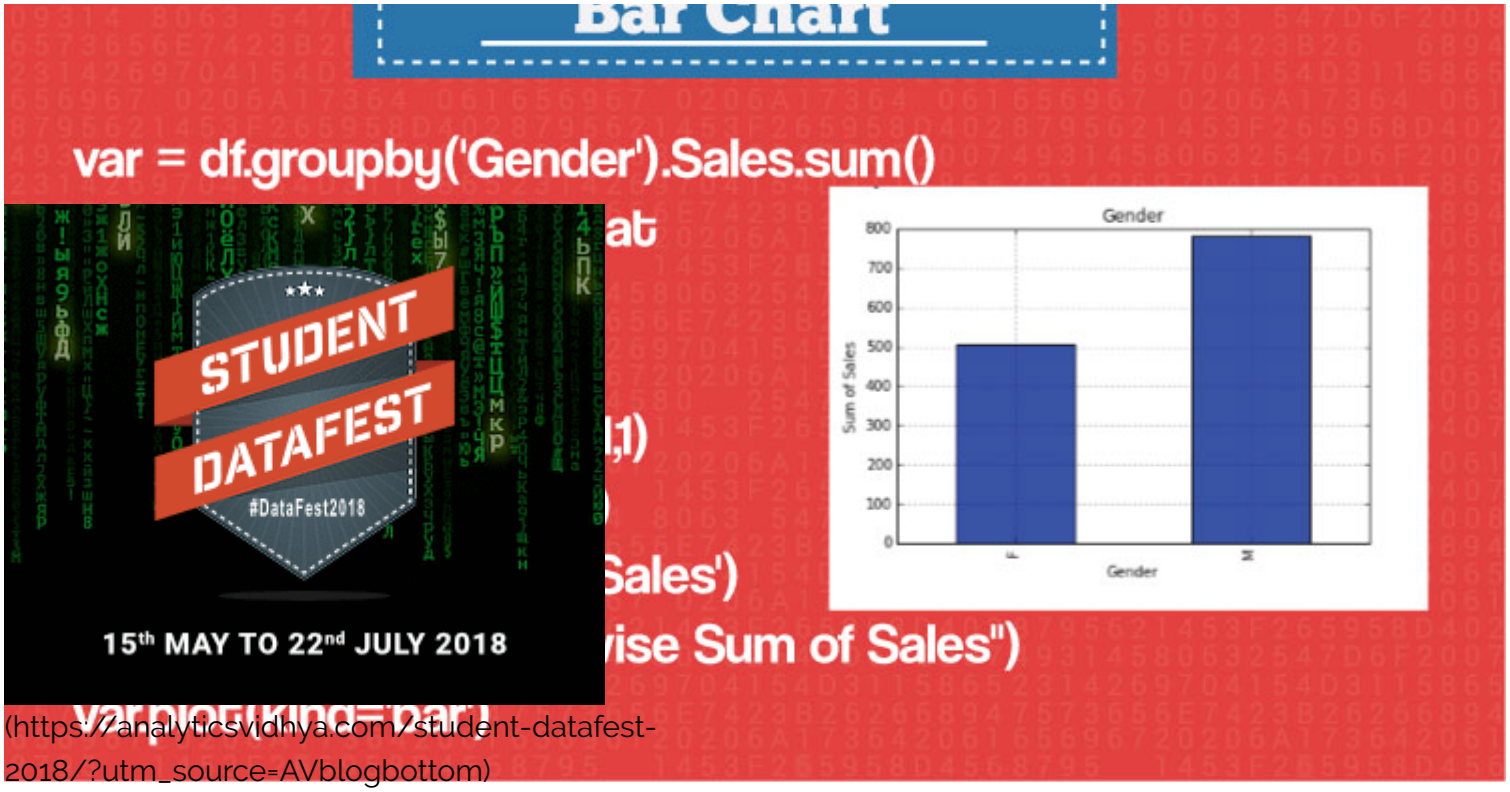
Violin Plot

```
import seaborn as sns
sns.violinplot(df['Age'], df['Gender'])
#Variable Plot
sns.despine()
```



Bar Chart



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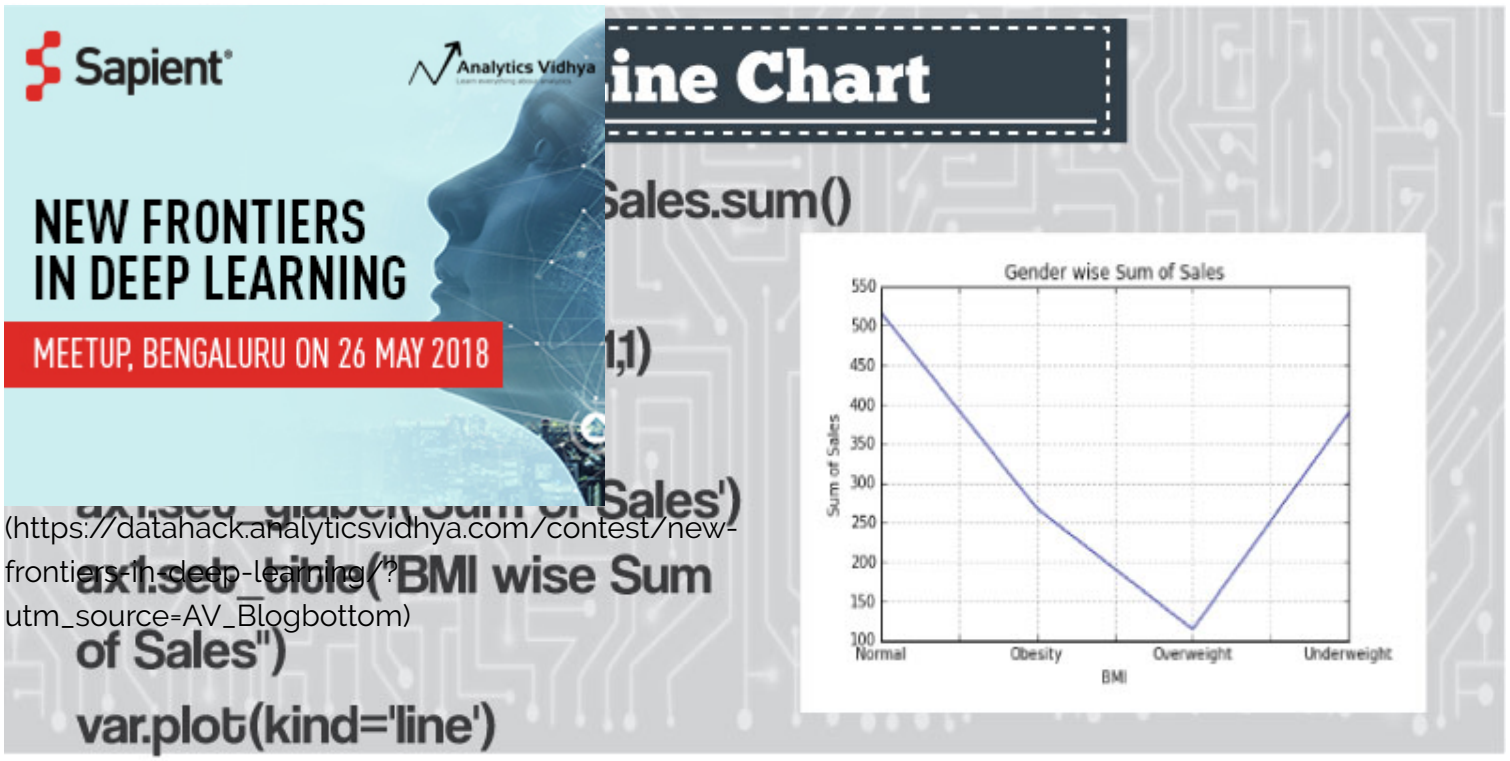

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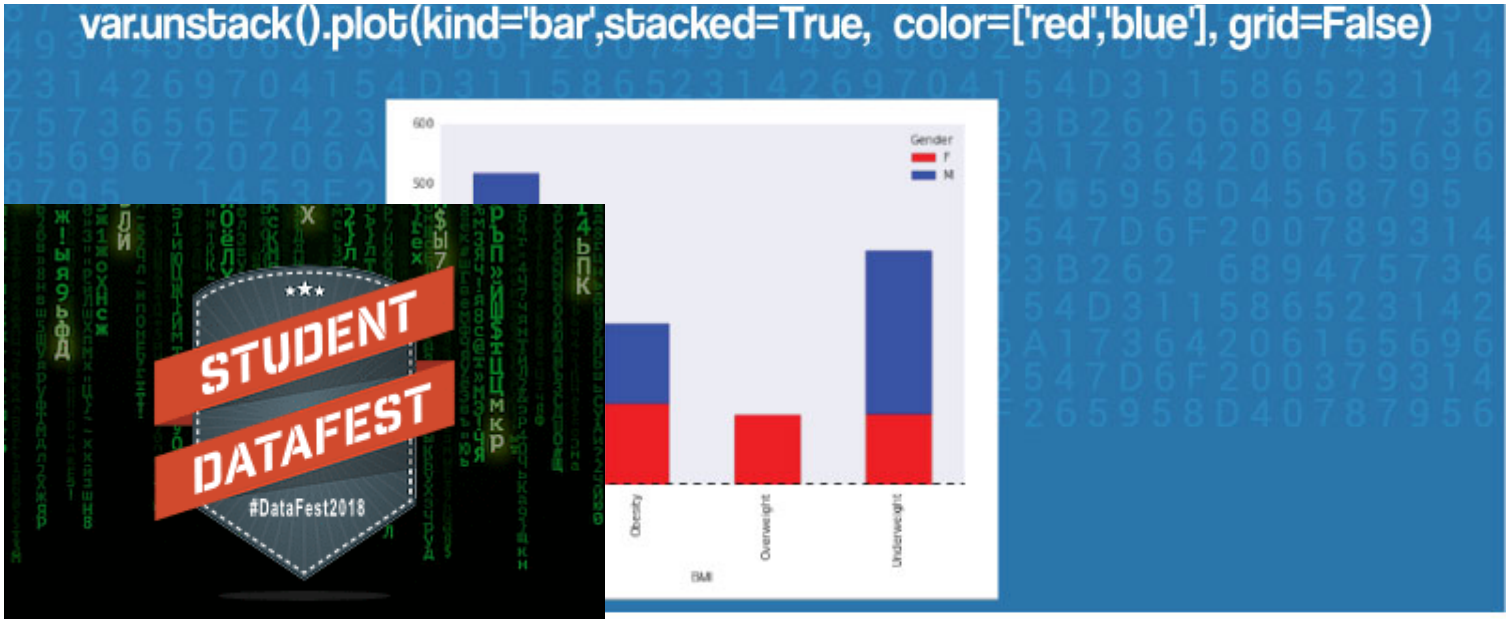

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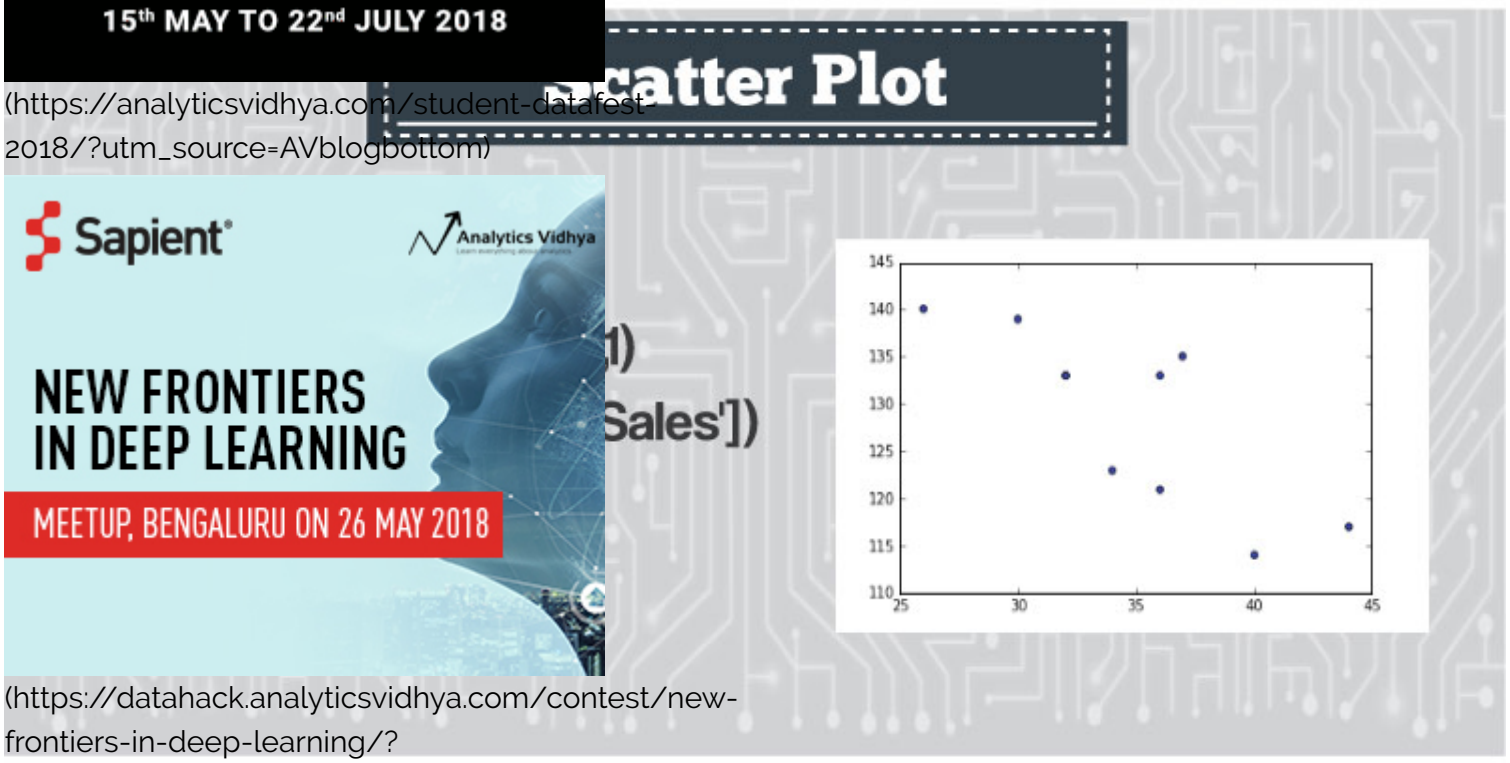

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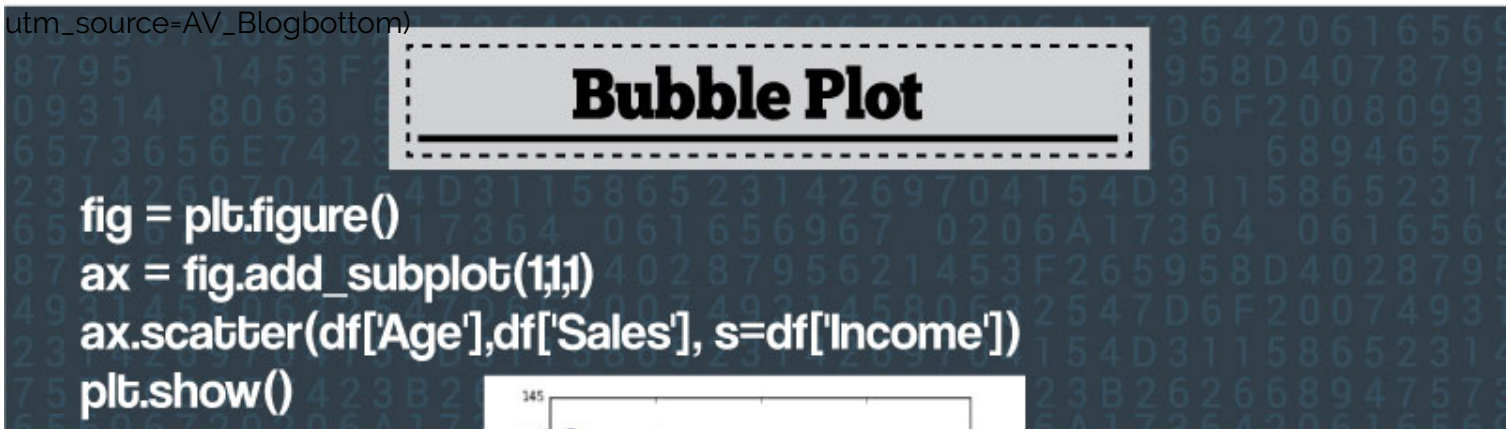

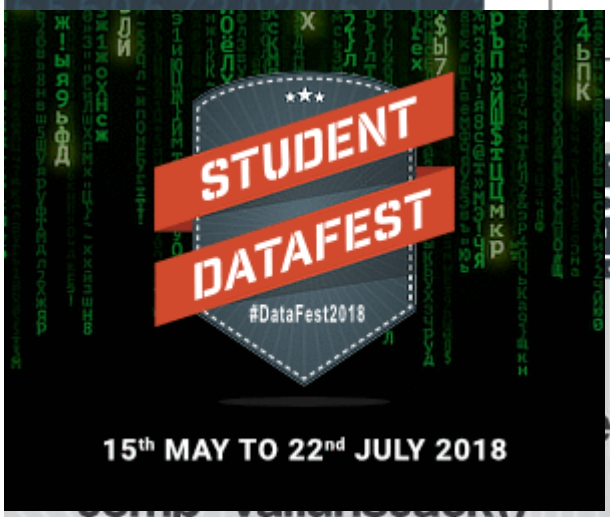

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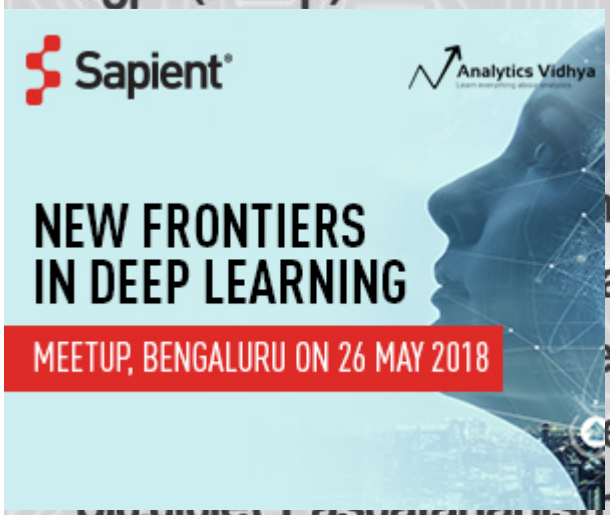

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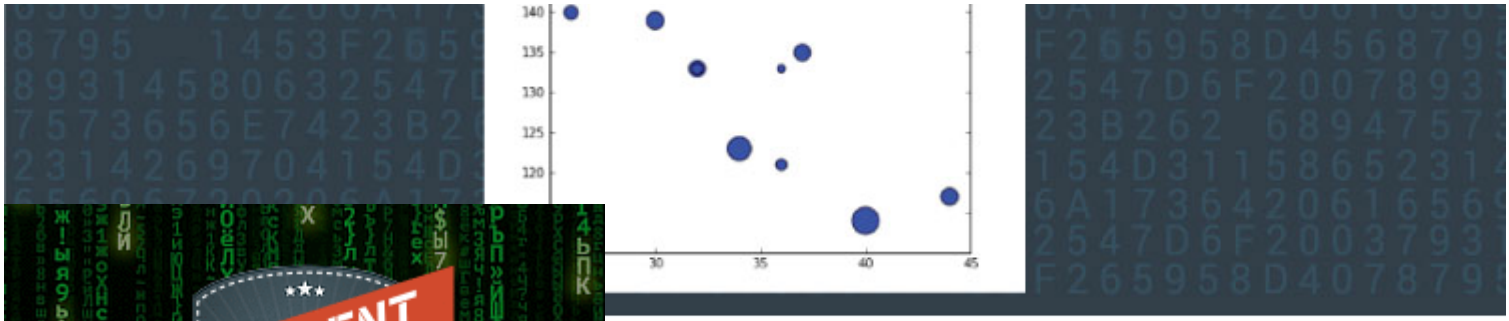

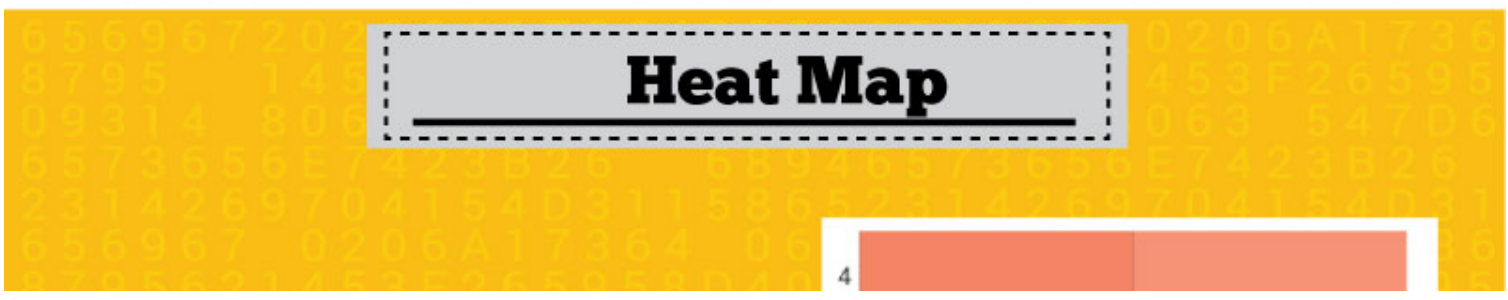

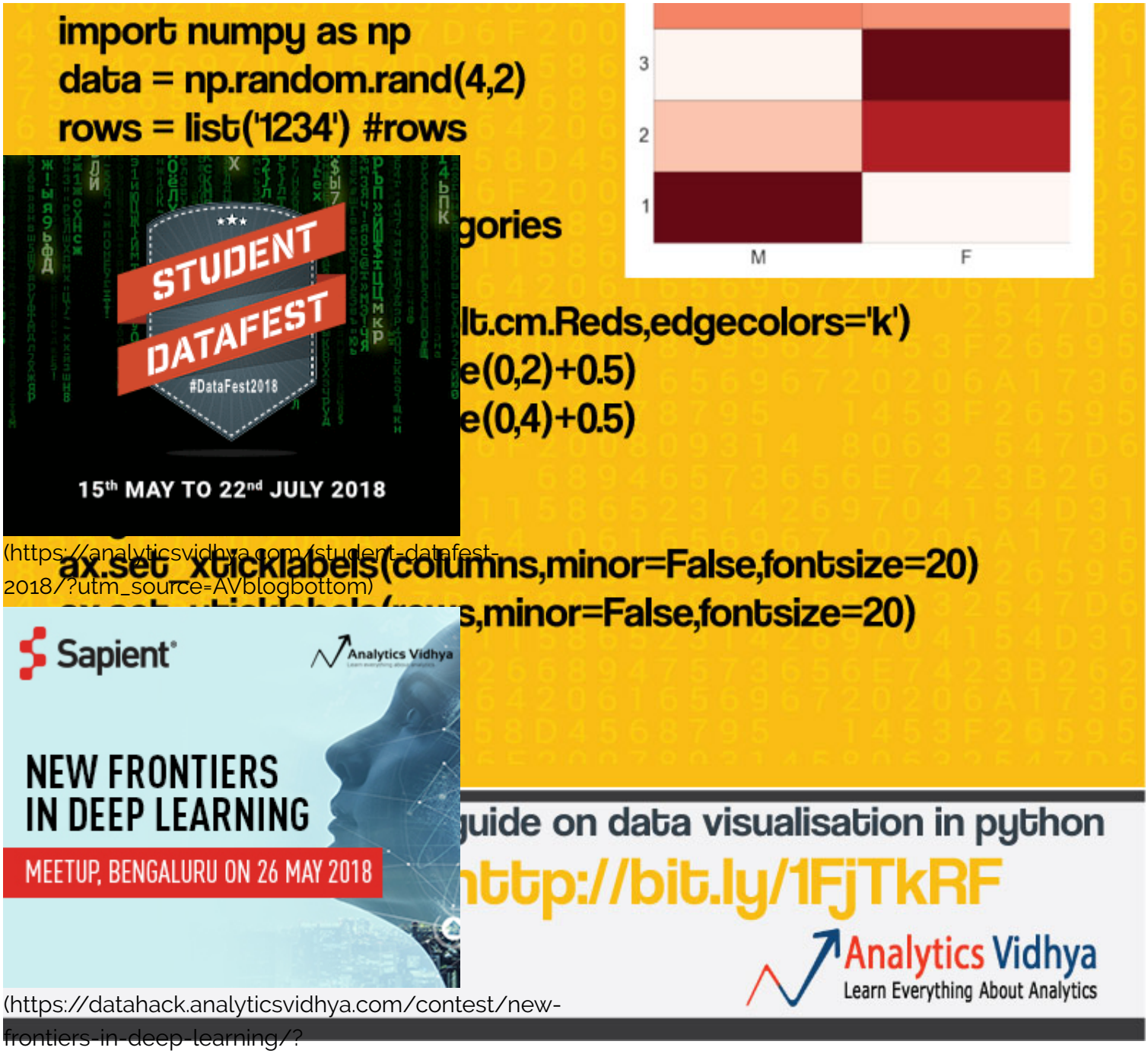

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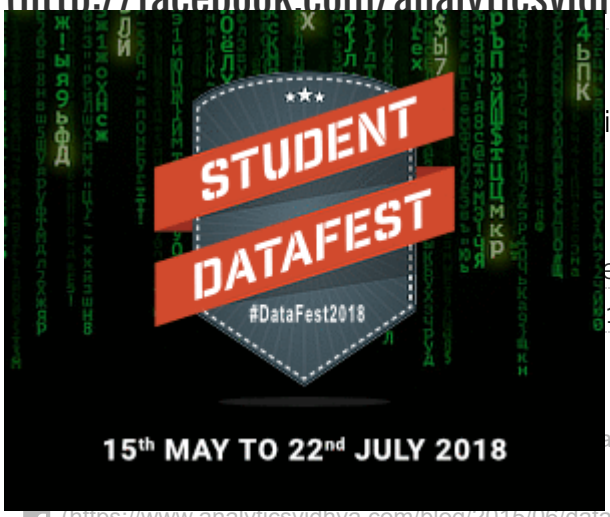

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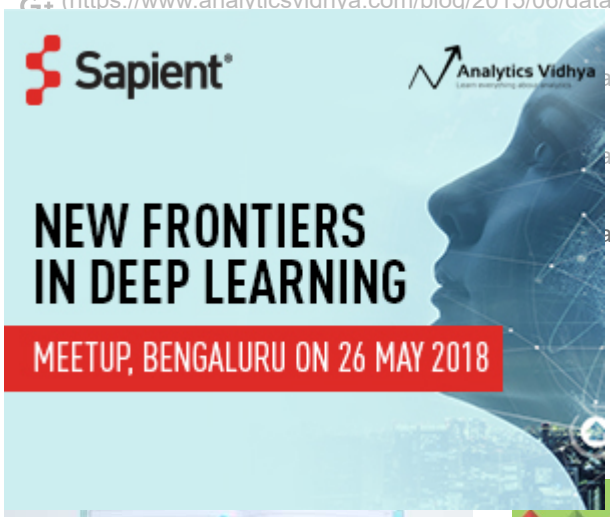

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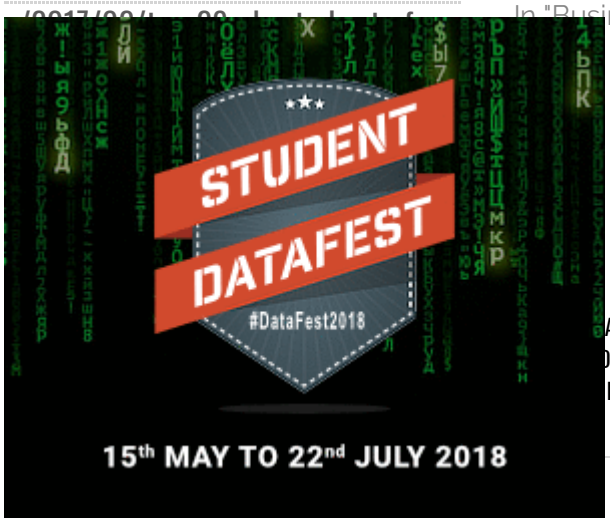

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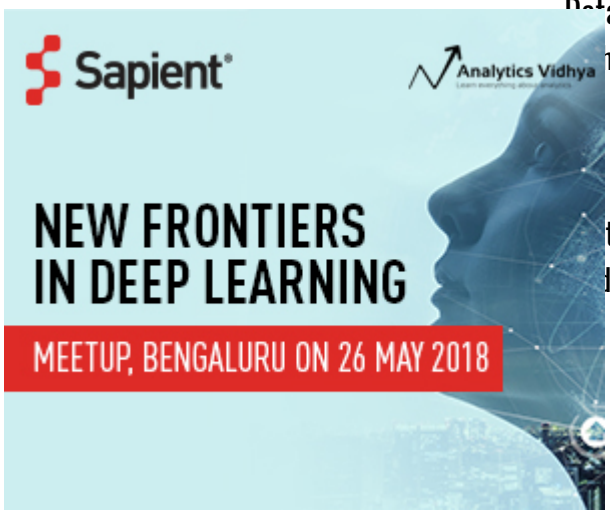

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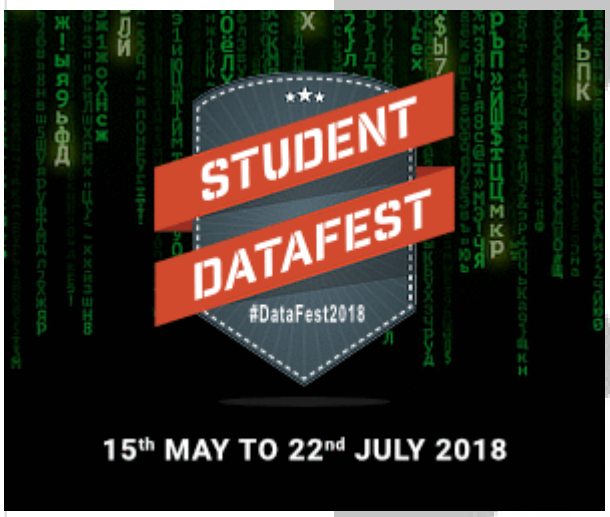

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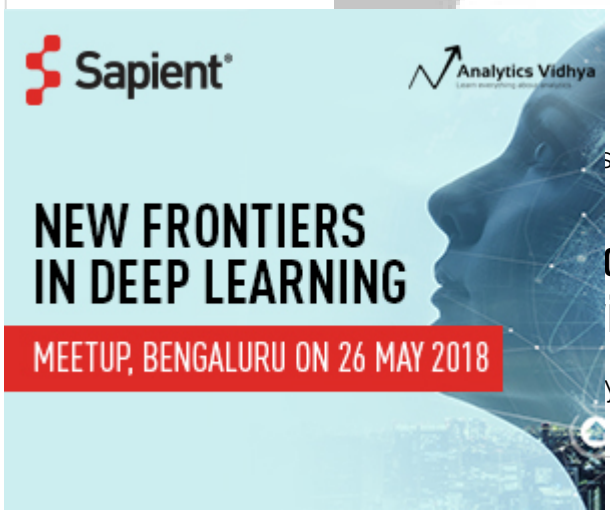

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Have a look at PyGal and GGPlot as well for visualization.

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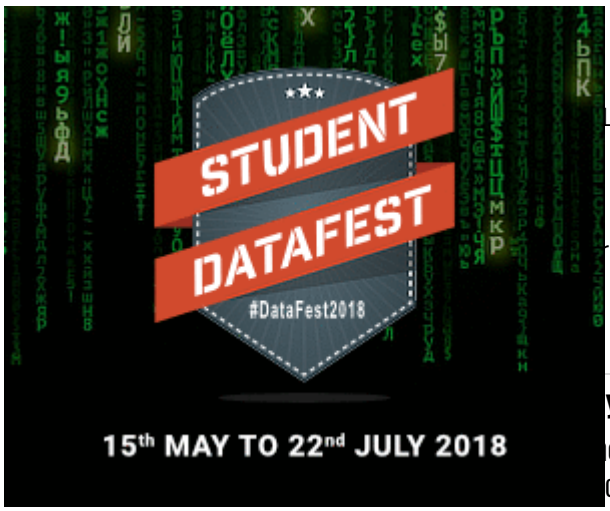

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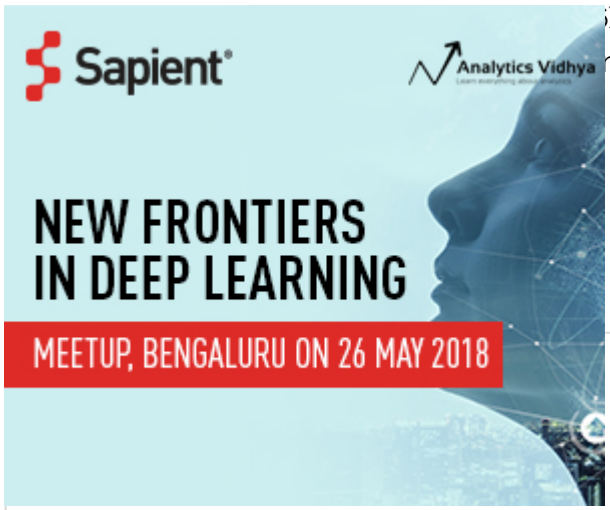

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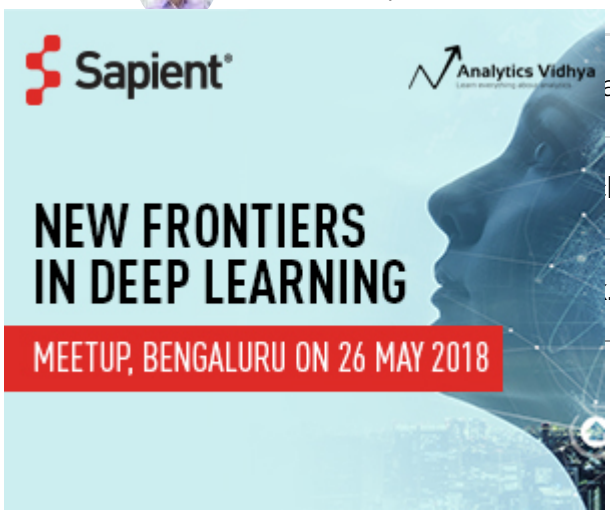

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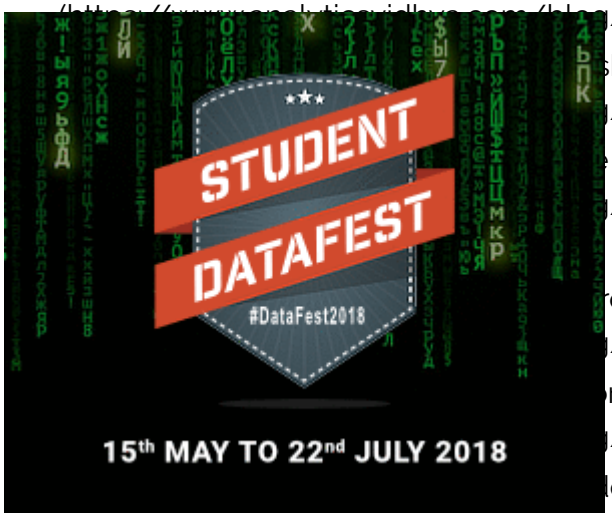

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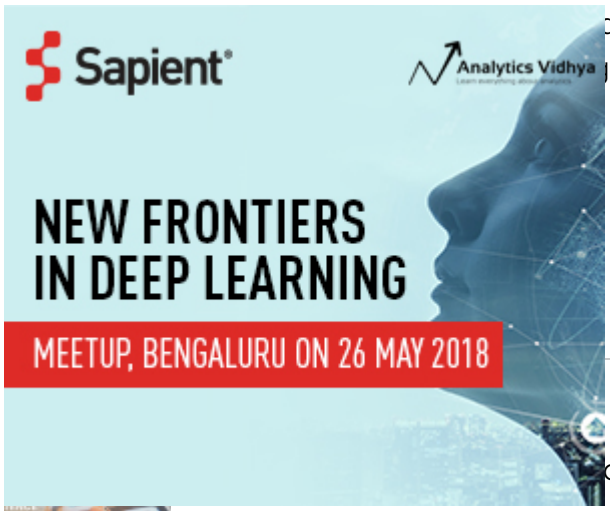

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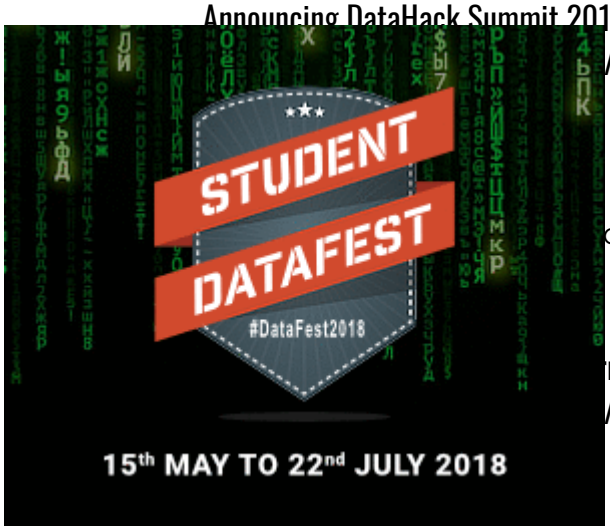

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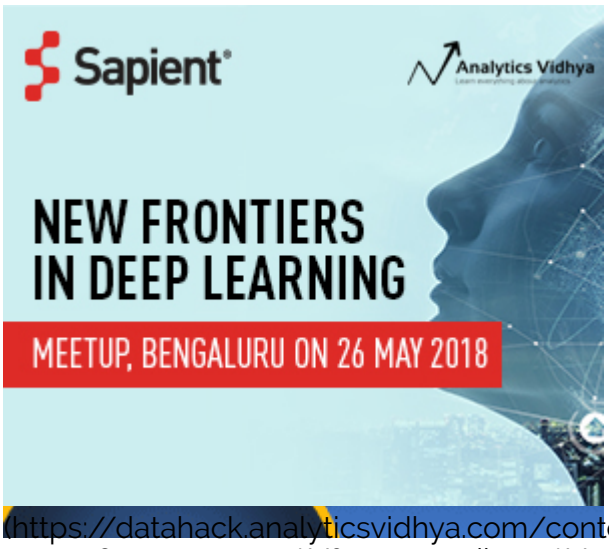

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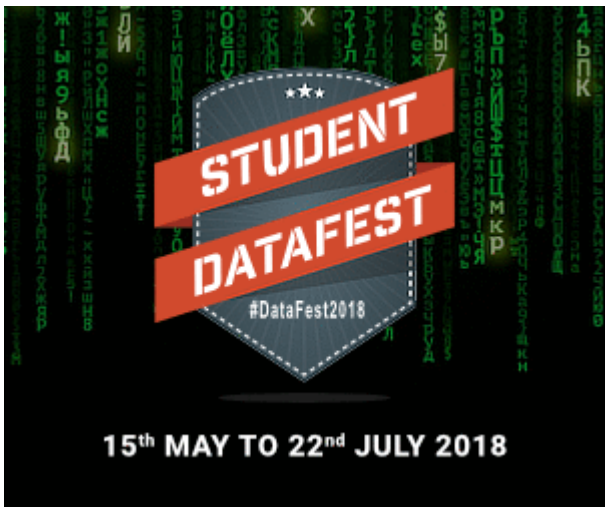

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