

mt2_analytics

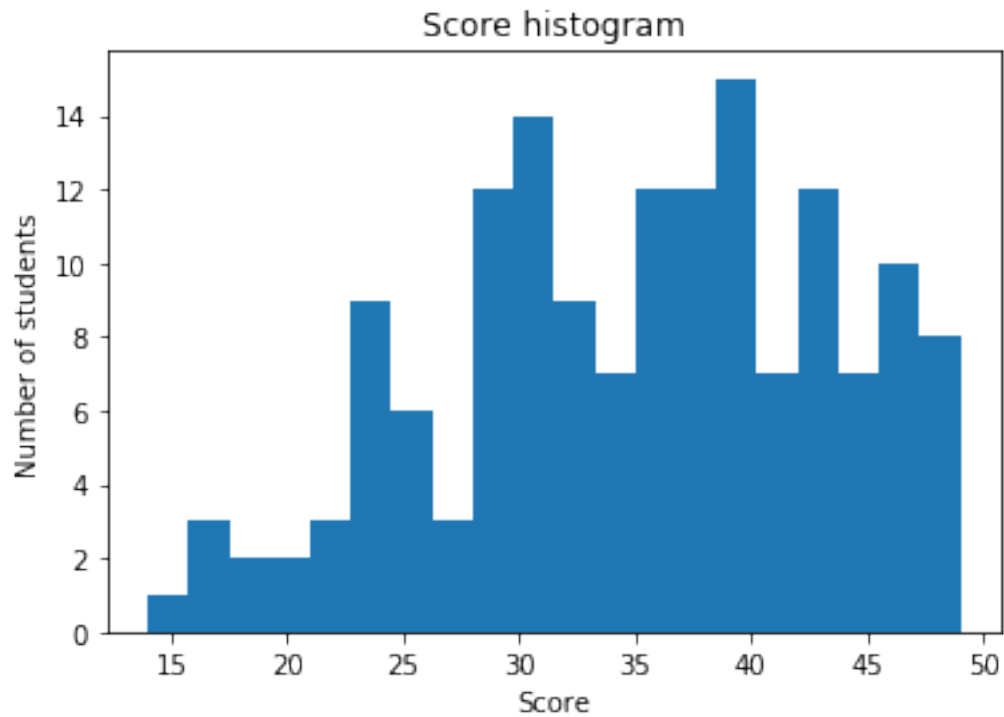
April 23, 2018

```
In [1]: import matplotlib.pyplot as plt
import numpy as np
from scipy.stats import gaussian_kde
from scipy.stats import mode
%matplotlib inline
```

```
In [2]: f = open('./scores.csv').readlines()
x = []
for line in f:
    try:
        x.append(int(line))
    except Exception:
        pass
```

```
In [3]: n,s,_ = plt.hist(x,bins=20)
plt.xlabel('Score')
plt.ylabel('Number of students')
plt.title('Score histogram')
```

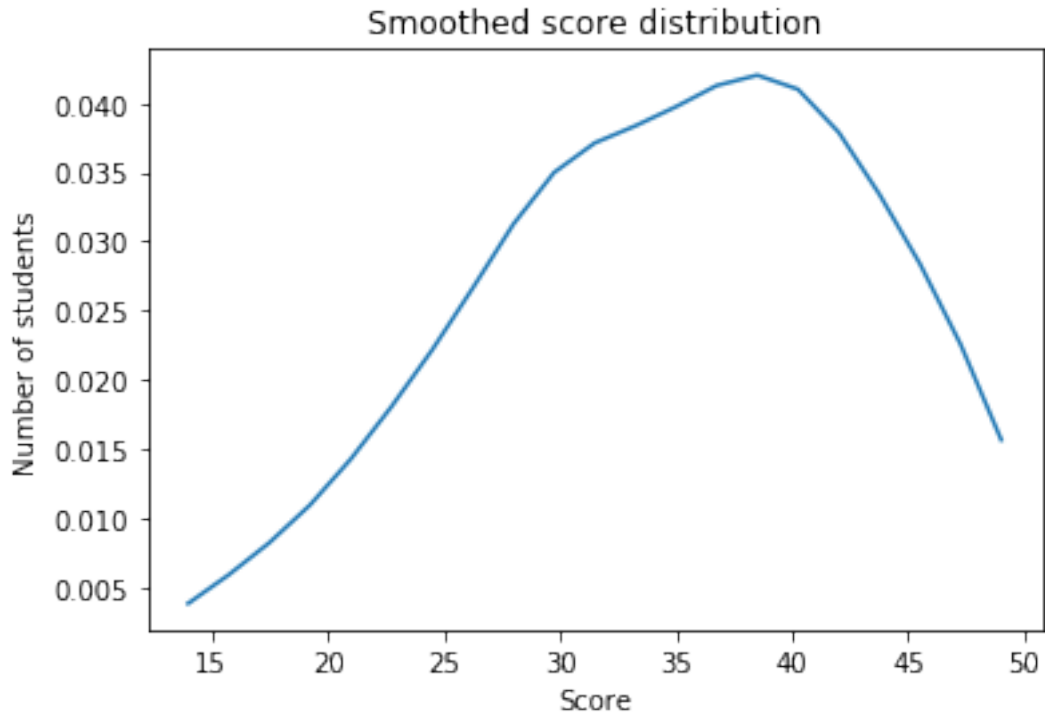
```
Out[3]: Text(0.5,1,'Score histogram')
```



```
In [4]: density = gaussian_kde(x)
```

```
In [5]: plt.plot(s,density(s))  
plt.xlabel('Score')  
plt.ylabel('Number of students')  
plt.title('Smoothed score distribution')
```

```
Out[5]: Text(0.5,1,'Smoothed score distribution')
```



```
In [6]: print("Mean = %0.2f\nStDev = %0.2f\nMedian = %0.2f\nMode = %0.2f" %  
            (np.mean(x), np.std(x), np.median(x), mode(x)[0]))
```

```
Mean = 34.91  
StDev = 8.22  
Median = 36.00  
Mode = 36.00
```