

MidTerm Exam 1 - Python

March 5, 2019

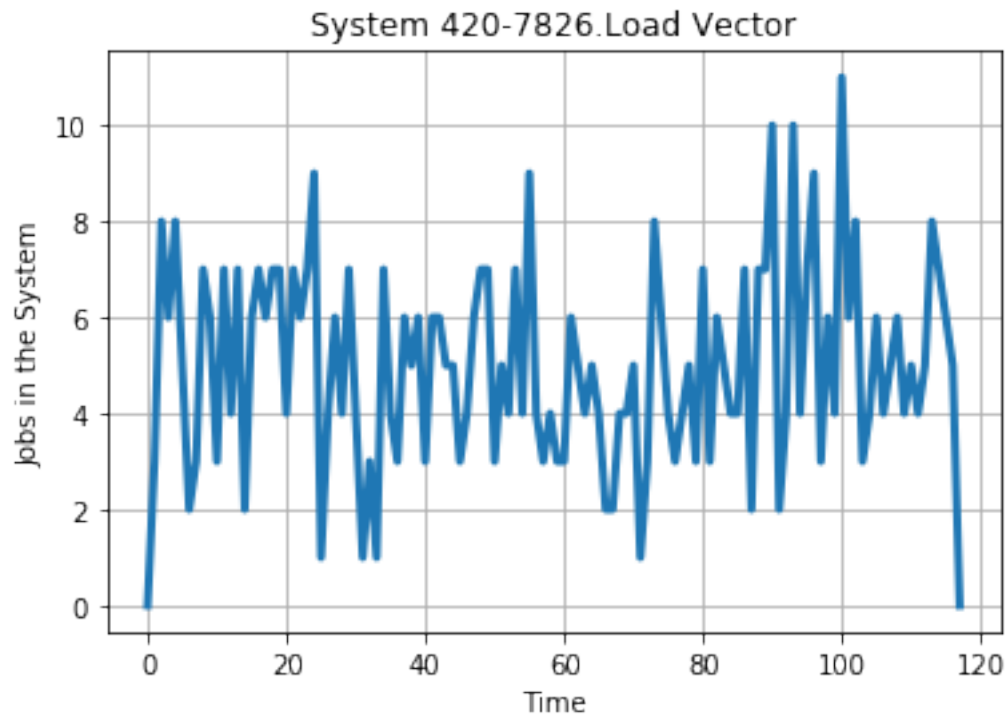
```
In [1]: ### This is Python code
```

```
In [2]: import matplotlib.pyplot as plt
import numpy as np
```

```
In [ ]: ### The values of the load Vector
```

```
In [13]: Load_Vector = np.array([0,3, 8, 6, 8, 5, 2, 3, 7, 6, 3, 7, 4, 7,
                                2, 6, 7, 6, 7, 7, 4, 7, 6, 7, 9, 1, 4, 6,
                                4, 7, 4, 1, 3, 1, 7, 4, 3,6, 5, 6, 3, 6,6,
                                5, 5, 3, 4, 6 ,7 ,7 ,3, 5, 4, 7, 4 ,9 ,4 ,
                                3 ,4 ,3 ,3, 6, 5, 4, 5, 4, 2, 2 ,4 ,4, 5,
                                1, 3, 8, 6, 4, 3, 4, 5, 3, 7, 3, 6, 5, 4,
                                4, 7, 2, 7, 7, 10 ,2, 4, 10, 4, 7, 9, 3,
                                6, 4, 11, 6, 8, 3, 4, 6, 4, 5, 6, 4, 5, 4,
                                5, 8, 7, 6, 5, 0])
```

```
In [21]: plt.plot (Load_Vector, linewidth=3)
plt.xlabel ("Time")
plt.ylabel ('Jobs in the System')
plt.title ('System 420-7826.Load Vector')
plt.grid(True)
plt.show()
```



In [25]: *### The mean value of the Load Vector is:*

In [22]: `np.mean (Load_Vector)`

Out[22]: 4.9661016949152543

In [24]: *### The standard deviation of the Load Vector is:*

In [23]: `np.std (Load_Vector)`

Out[23]: 2.131014731593452