MidTerm Exam 1 - Python

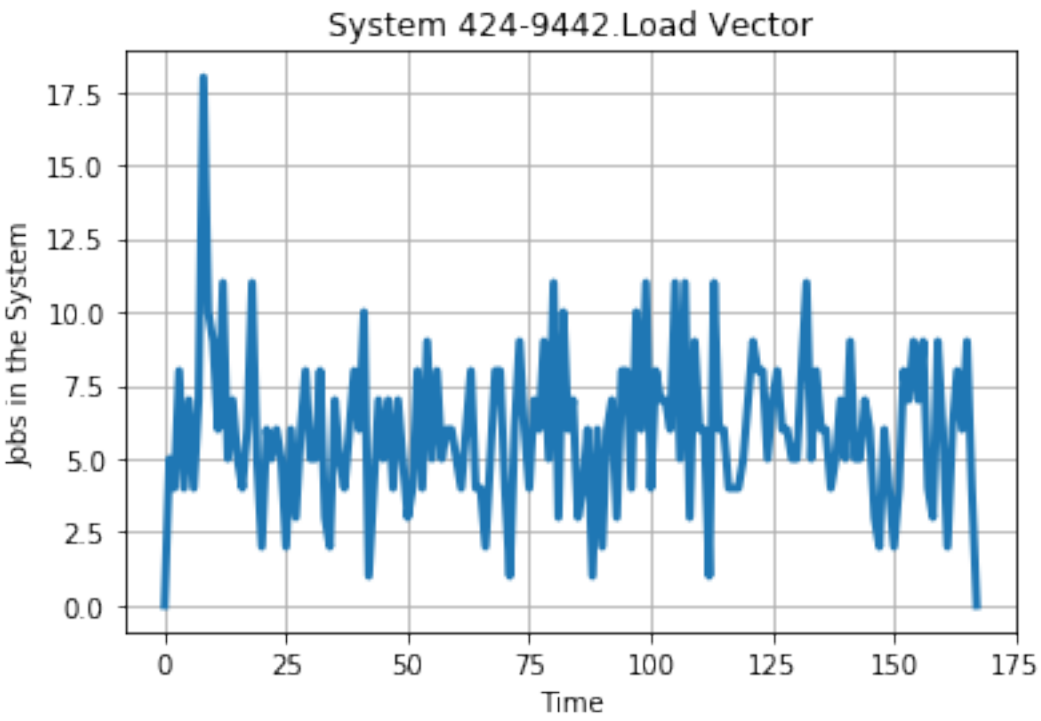
March 5, 2019

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

In [7]:
```
import matplotlib.pyplot as plt
import numpy as np
```

In [17]:
```
Load_Vector = np.array ([0, 5, 4, 8, 4, 7, 4, 7, 18, 10, 9, 6, 11,
                         5, 7, 5, 4, 6, 11, 5, 2, 6, 5, 6, 5, 2, 6,
                         3, 6, 8, 5, 5, 8, 3, 2, 7, 5, 4, 6, 8, 6,
                         10, 1, 4, 7, 5, 7, 4, 7, 5, 3, 4, 8, 4, 9,
                         5, 8, 5, 6, 6, 5, 4, 6, 8, 4, 4, 2, 5, 8, 8,
                         4, 1, 6, 9, 6, 4, 7, 6, 9, 5, 11, 3, 10, 6,
                         7, 3, 4, 6, 1, 6, 2, 6, 7, 3, 8, 8, 4, 10,
                         6, 11, 4, 8, 7, 7, 6, 11, 5, 11, 3, 9, 6, 6,
                         1, 11, 6, 6, 4, 4, 4, 5, 7, 9, 8, 8, 5, 7, 8,
                         6, 6, 5, 5, 8, 11, 5, 8, 6, 6, 4, 5, 7, 5, 9,
                         5, 5, 7, 6, 3, 2, 6, 4, 2, 4, 8, 7, 9, 7, 9,
                         4, 3, 9, 6, 2, 6, 8, 6, 9, 4, 0])
```

In [20]:
```
plt.plot(Load_Vector, linewidth=3)
plt.xlabel("Time")
plt.ylabel("Jobs in the System")
plt.title ('System 424-9442.Load Vector')
plt.grid(True)
plt.show()
```




```
In [21]: ### The mean value of the Load Vector is:

In [22]: np.mean (Load_Vector)

Out[22]: 5.9404761904761907

In [23]: ### The standard deviation of the Load Vector is:

In [24]: np.std (Load_Vector)

Out[24]: 2.567429650708636
```