**Matplotlib**

**General Notes**

* Use help() documentation for complete list of options/args
  + help(plt.hist) # for example
* In general, it is recommended to use named options/args

**Jupyter Notebook**

* **%matplotlib inline**
  + execute the above code prior to create plots using Jupyter Notebook to display visualizations within your notebook

**pyplot**

* Need to import pyplot
  + **import matplotlib.pyplot as plt**
* Line graph
  + plt.plot(*x, y*) # x and y axes should be a list of corresponding values
  + plt.show() # displays the plot
* Scatter plot
  + plt.scatter(*x, y*)
  + plt.show()
* Histogram
  + plt.hist(*x, bins*)
    - x list of values for which to build the histogram
    - bins specifies the number of bins # 10 is the default
* Transposing
  + a plot of a numpy array will often not look like what you want
  + Try transposing first if you don’t get the desired result
    - *numpy\_array\_t* = np.transpose(*numpy\_array*)
    - plt.plot(*numpy­\_array\_t*)
* Options
  + Labels
    - plt.xlabel(*string*) # strings go in “”
    - plt.ylable(*string*) # can supply a *var* that includes your *string*
    - plt.title(*string*)
  + Axes
    - plt.*x*ticks(*list, lables*)
      * *list* of values for major tick marks for x or y axis (complete range/interval)
      * *labels* is a list of strings to display if you want to alter the display on the axis
        + must be same length as the *list* you supplied
  + Log scale
    - plt.*x*scale(‘log’) # use x or y depending on which you want to transform