

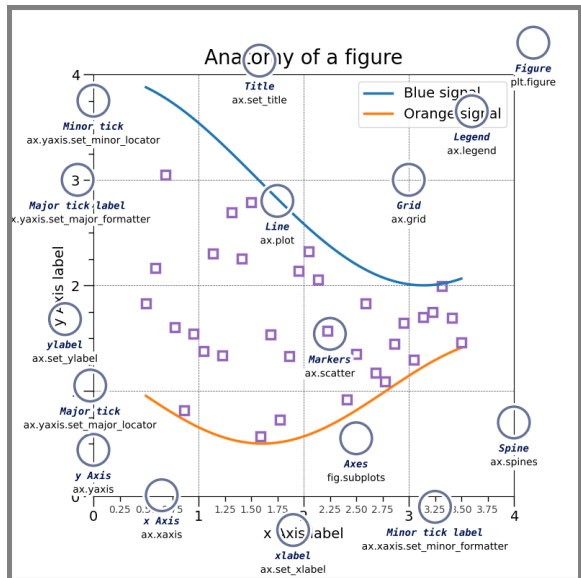


MATPLOTLIB CHEATSHEET

IMPORTING LIBRARIES

```
import matplotlib.pyplot as plt
```

ANATOMY OF A FIGURE



CREATE A SINGLE PLOT

```
fig, ax = plt.subplots()
```

fig figure object
ax single axes object

SUB PLOTS

```
fig, ax = plt.subplots(nrows, ncols, ...)
```

fig figure object
ax list of axes objects
nrows number of rows
ncols number of columns

SAVE PLOT

```
plt.savefig('plot.png')  
  
# transparent background  
plt.savefig('plot.png', transparent=True)
```

LEGEND

```
ax.legend(handles, labels, ...)
```

ax axes object
handles a list of Artists (lines, patches) to be added to the legend
labels number of columns

LINE PLOT

```
ax.plot(x, y, ...)
```

x the horizontal (X-axis) coordinates of the data points
y the vertical (Y-axis) coordinates of the data points

SCATTER PLOT

```
ax.scatter(x, y, ...)
```

x the horizontal (X-axis) coordinates of the data points
y the vertical (Y-axis) coordinates of the data points

VERTICAL BAR PLOT

```
ax.bar(x, height, ...)
```

x the horizontal (X-axis) coordinates of the data points
height the height of the bars (Y-axis)

HORIZONTAL BAR PLOT

```
ax.barh(y, width, ...)
```

y the vertical (Y-axis) coordinates of the data points
width the width of the bars (X-axis)

PIE CHART

```
ax.pie(x, ...)
```

x the wedges size (portion)

BOX PLOT

```
ax.boxplot(x, ...)
```

x the input data

HISTOGRAM

```
ax.hist(x, bins, ...)
```

x the input data
bins the number of bins or the bin edges

VIOLIN PLOT

```
ax.violinplot(dataset, ...)
```

dataset the input data

STACKED AREA PLOT

```
ax.stackplot(x, y, ...)
```

x the horizontal (X-axis) coordinates of the data points with shape (N,
y the vertical (Y-axis) unstacked data with shape (M,N)

SHOW PLOT

```
plt.show()
```

CLEAR PLOT

```
plt.cla() # clear an axis  
plt.clf() # clear the entire figure  
plt.close() # close figure window
```

QUICK REMINDER

ax.grid()	ax.set_title(title)
ax.set_xlim(vmin, vmax)	ax.set_ylim(vmin, vmax)
ax.set_xlabel(label)	ax.set_ylabel(label)

(...) means there are still other paramters that can be used

FIND ME AT <https://github.com/adhang/>