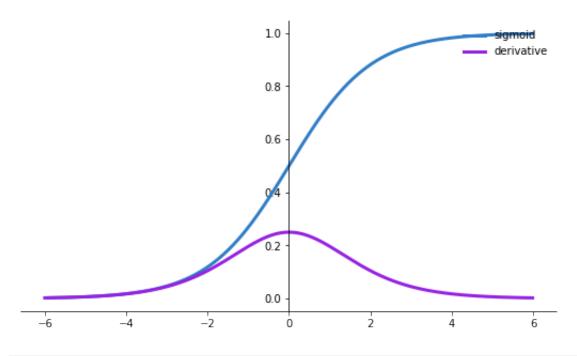
sigmoid\_vs\_derivative 10/2/19, 9:08 PM

```
In [1]: import matplotlib.pyplot as plt import numpy as np
```

```
In [28]:
def sigmoid(x):
    return 1./(1 + np.e**(-x))
#calculating plot points
x = np.arange(-6, +6, 0.01)
y = sigmoid(x)
dx = y*(1-y)
#setup axis
fig, ax = plt.subplots(figsize = (9,5))
ax.spines['left'].set_position('center')
ax.spines['right'].set color('none')
ax.spines['top'].set_color('none')
ax.xaxis.set ticks position('bottom')
ax.yaxis.set ticks position('left')
ax.plot(x, y, color="#307EC7", linewidth=3, label="sigmoid")
ax.plot(x, dx, color="#9621E2", linewidth=3, label="derivative")
ax.legend(loc="upper right", frameon=False)
# fig.show()
```

Out[28]: <matplotlib.legend.Legend at 0x119d6c438>



In [ ]: