import numpy as np

import matplotlib.pyplot as plt

def relu(x):

return np.maximum(0, x)

def sigmoid(x):

return 1 / (1 + np.exp(-x))

def softmax(x):

exp\_x = np.exp(x - np.max(x))

return exp\_x / np.sum(exp\_x)

def swish(x):

return x \* sigmoid(x)

x = np.linspace(-10, 10, 400)

fig, axes = plt.subplots(2, 2, figsize=(12, 8))

axes = axes.flatten()

axes[0].plot(x, relu(x))

axes[0].set\_title('ReLU Activation Function')

axes[1].plot(x, sigmoid(x))

axes[1].set\_title('Sigmoid Activation Function')

axes[2].plot(x, softmax(x))

axes[2].set\_title('Softmax Activation Function')

axes[3].plot(x, swish(x))

axes[3].set\_title('Swish Activation Function')

for ax in axes:

ax.set\_xlabel('Input')

ax.set\_ylabel('Output')

ax.grid(True)

plt.tight\_layout()

plt.show()