

```
In [2]: #TensorFlow
import tensorflow as tf
print("TensorFlow Version:", tf.__version__)
print("TensorFlow Test:", tf.reduce_sum(tf.random.normal([1000, 1000])))
```

TensorFlow Version: 2.10.0

TensorFlow Test: tf.Tensor(-1193.9541, shape=(), dtype=float32)

```
In [3]: #Keras
from tensorflow import keras
from keras import datasets

(train_images, train_labels), (test_images, test_labels) = datasets.mnist.load_data()
print("Train Images Shape:", train_images.shape)
print("Test Images Shape:", test_images.shape)
```

Train Images Shape: (60000, 28, 28)

Test Images Shape: (10000, 28, 28)

```
In [5]: #Theano
import theano
import theano.tensor as T

x = T.dscalar('x')
y = T.dscalar('y')
z = x + y
f = theano.function([x, y], z)
print("Theano Test (5+7):", f(5, 7))
```

Theano Test (5+7): 12.0

```
In [6]: #PyTorch
import torch
print("PyTorch Version:", torch.__version__)
x = torch.rand(5, 5)
y = torch.rand(5, 5)
print("PyTorch Tensor Sum:\n", torch.add(x, y))
```

PyTorch Version: 2.3.1

PyTorch Tensor Sum:

```
tensor([[1.4405, 0.9633, 0.2258, 1.2662, 0.7760],
        [1.0599, 0.7912, 1.5498, 1.2428, 0.8583],
        [0.5849, 1.5487, 1.1972, 1.3016, 1.0060],
        [1.1803, 1.2546, 1.6300, 1.3942, 0.6766],
        [1.4816, 1.3826, 0.7987, 1.7527, 1.1848]])
```

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In [ ]:
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