

tf.keras.datasets.mnist.load_data()

) # Reshape for CNN

<https://storage.googleapis.com/tensorflow/tf-keras-datasets/mnist.npz>
0s 0us/step

activation='relu', input_shape=(28, 28, 1)), # Reduced filters for speed
)

n='relu'), # Smaller layer
n='softmax')

parse_categorical_crossentropy', metrics=['accuracy'])
validation_data=(x_test, y_test)) # 3 epochs for simplicity

/keras/src/layers/convolutional/base_conv.py:107: UserWarning: Do not pass an `input_shape`/`input_dim` argument to a layer. When using Sequential, use `input_shape` argument to the first layer instead.
=activity_regularizer, **kwargs)

step - accuracy: 0.8946 - loss: 0.3636 - val_accuracy: 0.9768 - val_loss: 0.0708

step - accuracy: 0.9787 - loss: 0.0693 - val_accuracy: 0.9823 - val_loss: 0.0555

step - accuracy: 0.9872 - loss: 0.0427 - val_accuracy: 0.9799 - val_loss: 0.0610
0x7e1f28ba3a90>