

# LAB Logbook

## Week 10

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Model: "sequential\_5"

Layer (type)	Output Shape	Param #
flatten_2 (Flatten)	(None, 784)	0
gaussian_noise_3 (GaussianNoise)	(None, 784)	0
dense_21 (Dense)	(None, 500)	392,500
dense_22 (Dense)	(None, 300)	150,300
dense_23 (Dense)	(None, 250)	75,250
dense_24 (Dense)	(None, 200)	50,200
dense_25 (Dense)	(None, 100)	20,100
dense_26 (Dense)	(None, 50)	5,050

Total params: 693,400 (2.65 MB)

Trainable params: 693,400 (2.65 MB)

Non-trainable params: 0 (0.00 B)

None

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Model: "sequential\_6"

Layer (type)	Output Shape	Param #
dense_27 (Dense)	(None, 100)	5,100
dense_28 (Dense)	(None, 200)	20,200
dense_29 (Dense)	(None, 250)	50,250
dense_30 (Dense)	(None, 300)	75,300
dense_31 (Dense)	(None, 500)	150,500
dense_32 (Dense)	(None, 784)	392,784
reshape_2 (Reshape)	(None, 28, 28)	0

Total params: 694,134 (2.65 MB)

Trainable params: 694,134 (2.65 MB)

Non-trainable params: 0 (0.00 B)

None

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Model: "sequential\_7"

Layer (type)	Output Shape	Param #
sequential_5 (Sequential)	(None, 50)	693,400
sequential_6 (Sequential)	(None, 28, 28)	694,134

Total params: 1,387,534 (5.29 MB)

Trainable params: 1,387,534 (5.29 MB)

Non-trainable params: 0 (0.00 B)

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## 2

Model: "sequential\_2"

Layer (type)	Output Shape	Param #
sequential (Sequential)	(None, 30)	167,166
sequential_1 (Sequential)	(None, 28, 28, 1)	14,049

Total params: 543,647 (2.07 MB)

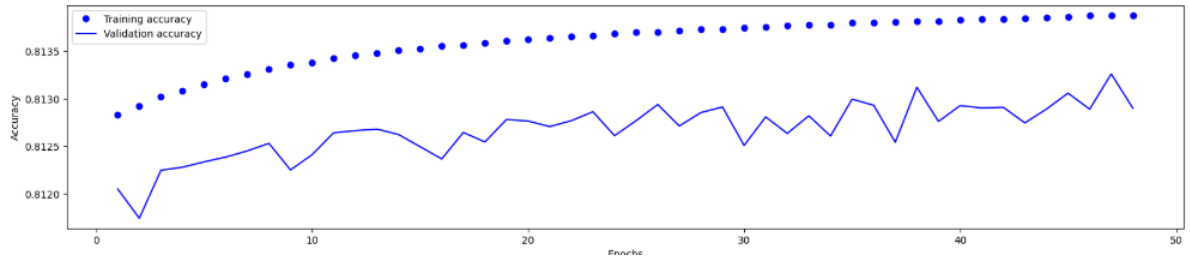
Trainable params: 181,215 (707.87 KB)

Non-trainable params: 0 (0.00 B)

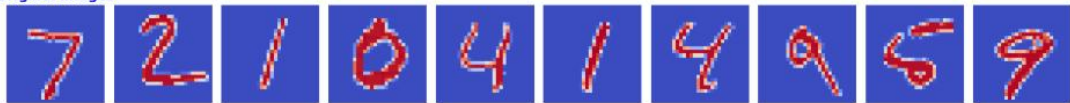
Optimizer params: 362,432 (1.38 MB)

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```
history_2 = autoencoder.fit(x_train, x_train, epochs=48, batch_size=128, shuffle=True, verbose=1, validation_data=(x_test, x_test))
```



Original Images



Reconstructed (Edge Detected)

