```
Model is Fashion_MNIST_CNN(
  (encoder): ConvAutoencoder(
    (conv1): Conv2d(1, 16, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
    (conv2): Conv2d(16, 4, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
    (pool): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
    (t_conv1): ConvTranspose2d(4, 16, kernel_size=(2, 2), stride=(2, 2))
    (t_conv2): ConvTranspose2d(16, 1, kernel_size=(2, 2), stride=(2, 2))
  )
  (layer1): Sequential(
    (0): Conv2d(1, 32, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1))
    (1): BatchNorm2d(32, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (2): ReLU()
    (3): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
  )
  (layer2): Sequential(
    (0): Conv2d(32, 64, kernel_size=(3, 3), stride=(1, 1))
    (1): BatchNorm2d(64, eps=1e-05, momentum=0.1, affine=True,
track_running_stats=True)
    (2): ReLU()
    (3): MaxPool2d(kernel_size=2, stride=2, padding=0, dilation=1,
ceil_mode=False)
  )
  (fc1): Linear(in_features=2304, out_features=600, bias=True)
  (drop): Dropout2d(p=0.25, inplace=False)
  (fc2): Linear(in_features=600, out_features=120, bias=True)
  (fc3): Linear(in_features=120, out_features=10, bias=True)
)
********************************
epoch 0 | train loss : 2.312891721725464
epoch 0 | Validation loss : 2.3070104122161865
********************************
epoch 1 | train loss : 2.3069238662719727
epoch 1 | Validation loss : 2.3070104122161865
********************************
epoch 2 | train loss : 2.3069238662719727
epoch 2 | Validation loss : 2.3070104122161865
********************************
epoch 3 | train loss : 2.3069238662719727
epoch 3 | Validation loss : 2.3070104122161865
********************************
epoch 4 | train loss : 2.3069238662719727
epoch 4 | Validation loss : 2.3070104122161865
********************************
epoch 5 | train loss : 2.3069238662719727
early stopping
```

```
train accuracy : 0.09945832937955856
Validation accuracy : 0.10241666436195374

run
Attack Success Rate = 881 / 10000 = 0.0881
Acuracy Rate = 9037 / 10000 = 0.9037
```