```
C:\Python35\python.exe M:/ce888/ce888-assignment2/
n_conv_autoencoder_cifar10.py
Using TensorFlow backend.
Downloading data from http://www.cs.toronto.edu/~kriz/
cifar-10-python.tar.gz
170450944/170498071 [==============================>.] - ETA
: 0sx_train shape: (50000, 32, 32, 3)
50000 train samples
10000 test samples
Train on 50000 samples, validate on 10000 samples
Epoch 1/20
2018-04-16 15:02:24.807198: W C:\tf_jenkins\home\workspace
\rel-win\M\windows\PY\35\tensorflow\core\platform\
cpu_feature_guard.cc:45] The TensorFlow library wasn't
compiled to use AVX instructions, but these are available
on your machine and could speed up CPU computations.
2018-04-16 15:02:24.807529: W C:\tf_jenkins\home\workspace
\rel-win\M\windows\PY\35\tensorflow\core\platform\
cpu_feature_guard.cc:45] The TensorFlow library wasn't
compiled to use AVX2 instructions, but these are available
 on your machine and could speed up CPU computations.
50000/50000 [==============================] - 565s - loss
: 0.5827 - val_loss: 0.5738
Epoch 2/20
50000/50000 [==============================] - 563s - loss
: 0.5727 - val_loss: 0.5711
Epoch 3/20
50000/50000 [==============================] - 564s - loss
: 0.5698 - val_loss: 0.5703
Epoch 4/20
50000/50000 [==============================] - 557s - loss
: 0.5683 - val_loss: 0.5676
Epoch 5/20
50000/50000 [==============================] - 556s - loss
: 0.5674 - val_loss: 0.5666
Epoch 6/20
50000/50000 [==============================] - 556s - loss
: 0.5668 - val_loss: 0.5664
Epoch 7/20
50000/50000 [==============================] - 560s - loss
: 0.5663 - val_loss: 0.5671
Epoch 8/20
50000/50000 [==============================] - 558s - loss
: 0.5659 - val_loss: 0.5648
Epoch 9/20
```

```
27 50000/50000 [==============================] - 548s - loss
   : 0.5657 - val_loss: 0.5649
28 Epoch 10/20
29 50000/50000 [==============================] - 529s - loss
   : 0.5653 - val_loss: 0.5667
30 Epoch 11/20
31 50000/50000 [==============================] - 530s - loss
   : 0.5651 - val_loss: 0.5652
32 Epoch 12/20
33 50000/50000 [==============================] - 546s - loss
   : 0.5649 - val_loss: 0.5645
34 Epoch 13/20
35 50000/50000 [==============================] - 540s - loss
   : 0.5647 - val_loss: 0.5645
36 Epoch 14/20
37 50000/50000 [==============================] - 588s - loss
   : 0.5645 - val_loss: 0.5638
38 Epoch 15/20
39 50000/50000 [==============================] - 583s - loss
   : 0.5643 - val_loss: 0.5639
40 Epoch 16/20
41 50000/50000 [==============================] - 583s - loss
   : 0.5642 - val_loss: 0.5642
42 Epoch 17/20
43 50000/50000 [==============================] - 582s - loss
   : 0.5642 - val_loss: 0.5645
44 Epoch 18/20
45 50000/50000 [==============================] - 582s - loss
   : 0.5640 - val_loss: 0.5631
46 Epoch 19/20
47 50000/50000 [==============================] - 589s - loss
   : 0.5638 - val_loss: 0.5638
48 Epoch 20/20
49 50000/50000 [==============================] - 585s - loss
   : 0.5638 - val_loss: 0.5635
50 ================================================================
   ====
51 The loss on x_test : 0.563475219345
52 The accuracy on x_test : 0.436524780655
53 ================================================================
   ====
54 The loss on x_train : 0.562509128342
55 The accuracy on x_train : 0.437490871658
56 ================================================================
   ====
```

```
The loss on x1_train : -1908.422082656250
The accuracy on x1_train : 1909.422082656250
================================================================
The loss on x2_train : -1908.422082343750
The accuracy on x2_train : 1909.422082343750
================================================================
The loss on x3_train : -1908.422082734375
The accuracy on x3_train : 1909.422082734375

Process finished with exit code 0

```