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1 /Users/snehamishra/PycharmProjects/Test/venv/bin/python /
  Users/snehamishra/Desktop/UMKC/Fall2018/Python/Python-
  DeepLearning_Fall2018/Mod2_ICP7/Source/
  DeepLearning_SourceCode7/autoencoder_sparcity_stacked.py
2 Using TensorFlow backend.
3 Train on 60000 samples, validate on 10000 samples
4 2018-12-10 18:29:24.035292: I tensorflow/core/platform/
  cpu_feature_guard.cc:141] Your CPU supports instructions
  that this TensorFlow binary was not compiled to use: AVX2
  FMA
5 Epoch 1/5
6
7   256/60000 [.....] - ETA: 1:12 -
  loss: 1.1998
8   1536/60000 [.....] - ETA: 14s -
  loss: 0.9227
9   2816/60000 [>.....] - ETA: 8s -
  loss: 0.8364
10  3840/60000 [>.....] - ETA: 7s -
  loss: 0.8025
11  4864/60000 [=>.....] - ETA: 6s -
  loss: 0.7814
12  5632/60000 [=>.....] - ETA: 5s -
  loss: 0.7700
13  6400/60000 [==>.....] - ETA: 5s -
  loss: 0.7611
14  7424/60000 [==>.....] - ETA: 4s -
  loss: 0.7517
15  8704/60000 [===>.....] - ETA: 4s -
  loss: 0.7428
16  9984/60000 [===>.....] - ETA: 4s -
  loss: 0.7359
17 11264/60000 [====>.....] - ETA: 3s -
  loss: 0.7303
18 12544/60000 [====>.....] - ETA: 3s -
  loss: 0.7257
19 13568/60000 [====>.....] - ETA: 3s -
  loss: 0.7225
20 14848/60000 [=====>.....] - ETA: 3s -
  loss: 0.7190
21 15872/60000 [=====>.....] - ETA: 3s -
  loss: 0.7165
22 17152/60000 [=====>.....] - ETA: 2s -
  loss: 0.7136
23 18176/60000 [=====>.....] - ETA: 2s -
  loss: 0.7116
24 19200/60000 [=====>.....] - ETA: 2s -
  loss: 0.7096
25 20480/60000 [=====>.....] - ETA: 2s -
  loss: 0.7073

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26 21760/60000 [=====>.....] - ETA: 2s -
    loss: 0.7051
27 22784/60000 [=====>.....] - ETA: 2s -
    loss: 0.7034
28 23808/60000 [=====>.....] - ETA: 2s -
    loss: 0.7017
29 24832/60000 [=====>.....] - ETA: 2s -
    loss: 0.7000
30 25856/60000 [=====>.....] - ETA: 2s -
    loss: 0.6983
31 26368/60000 [=====>.....] - ETA: 2s -
    loss: 0.6974
32 27392/60000 [=====>.....] - ETA: 2s -
    loss: 0.6955
33 28160/60000 [=====>.....] - ETA: 2s -
    loss: 0.6940
34 29184/60000 [=====>.....] - ETA: 1s -
    loss: 0.6918
35 30208/60000 [=====>.....] - ETA: 1s -
    loss: 0.6891
36 31232/60000 [=====>.....] - ETA: 1s -
    loss: 0.6859
37 32256/60000 [=====>.....] - ETA: 1s -
    loss: 0.6817
38 33536/60000 [=====>.....] - ETA: 1s -
    loss: 0.6743
39 34560/60000 [=====>.....] - ETA: 1s -
    loss: 0.6665
40 35328/60000 [=====>.....] - ETA: 1s -
    loss: 0.6596
41 36096/60000 [=====>.....] - ETA: 1s -
    loss: 0.6524
42 37120/60000 [=====>.....] - ETA: 1s -
    loss: 0.6425
43 38144/60000 [=====>.....] - ETA: 1s -
    loss: 0.6329
44 39168/60000 [=====>.....] - ETA: 1s -
    loss: 0.6236
45 40448/60000 [=====>.....] - ETA: 1s -
    loss: 0.6125
46 41472/60000 [=====>.....] - ETA: 1s -
    loss: 0.6040
47 42496/60000 [=====>.....] - ETA: 1s -
    loss: 0.5959
48 43008/60000 [=====>.....] - ETA: 1s -
    loss: 0.5920
49 44032/60000 [=====>.....] - ETA: 0s -
    loss: 0.5845
50 45056/60000 [=====>.....] - ETA: 0s -
    loss: 0.5772

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51 46080/60000 [=====>.....] - ETA: 0s -
    loss: 0.5703
52 47104/60000 [=====>.....] - ETA: 0s -
    loss: 0.5637
53 48128/60000 [=====>.....] - ETA: 0s -
    loss: 0.5574
54 49152/60000 [=====>.....] - ETA: 0s -
    loss: 0.5513
55 50176/60000 [=====>.....] - ETA: 0s -
    loss: 0.5455
56 51200/60000 [=====>.....] - ETA: 0s -
    loss: 0.5399
57 52224/60000 [=====>....] - ETA: 0s -
    loss: 0.5346
58 53504/60000 [=====>....] - ETA: 0s -
    loss: 0.5281
59 54784/60000 [=====>...] - ETA: 0s -
    loss: 0.5220
60 56064/60000 [=====>..] - ETA: 0s -
    loss: 0.5160
61 57088/60000 [=====>..] - ETA: 0s -
    loss: 0.5115
62 57856/60000 [=====>..] - ETA: 0s -
    loss: 0.5081
63 58880/60000 [=====>.] - ETA: 0s -
    loss: 0.5039
64 59904/60000 [=====>.] - ETA: 0s -
    loss: 0.4997
65 60000/60000 [=====] - 4s 63us/
    step - loss: 0.4994 - val_loss: 0.2637
66 Epoch 2/5
67
68 256/60000 [.....] - ETA: 2s -
    loss: 0.2597
69 1536/60000 [.....] - ETA: 2s -
    loss: 0.2644
70 2560/60000 [>.....] - ETA: 3s -
    loss: 0.2647
71 3072/60000 [>.....] - ETA: 4s -
    loss: 0.2637
72 4096/60000 [=>.....] - ETA: 4s -
    loss: 0.2642
73 5376/60000 [=>.....] - ETA: 3s -
    loss: 0.2638
74 6400/60000 [==>.....] - ETA: 3s -
    loss: 0.2644
75 7680/60000 [==>.....] - ETA: 3s -
    loss: 0.2646
76 8704/60000 [===>.....] - ETA: 3s -
    loss: 0.2643

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77 9728/60000 [==>.....] - ETA: 2s -  
   loss: 0.2643  
78 10496/60000 [====>.....] - ETA: 2s -  
   loss: 0.2644  
79 11520/60000 [====>.....] - ETA: 2s -  
   loss: 0.2646  
80 12544/60000 [====>.....] - ETA: 2s -  
   loss: 0.2644  
81 13824/60000 [====>.....] - ETA: 2s -  
   loss: 0.2644  
82 15104/60000 [====>.....] - ETA: 2s -  
   loss: 0.2644  
83 16384/60000 [====>.....] - ETA: 2s -  
   loss: 0.2642  
84 17664/60000 [====>.....] - ETA: 2s -  
   loss: 0.2640  
85 18944/60000 [====>.....] - ETA: 2s -  
   loss: 0.2639  
86 20224/60000 [====>.....] - ETA: 2s -  
   loss: 0.2640  
87 21248/60000 [====>.....] - ETA: 2s -  
   loss: 0.2641  
88 22528/60000 [====>.....] - ETA: 2s -  
   loss: 0.2641  
89 23808/60000 [====>.....] - ETA: 1s -  
   loss: 0.2640  
90 25088/60000 [====>.....] - ETA: 1s -  
   loss: 0.2640  
91 26368/60000 [====>.....] - ETA: 1s -  
   loss: 0.2640  
92 27648/60000 [====>.....] - ETA: 1s -  
   loss: 0.2638  
93 28672/60000 [====>.....] - ETA: 1s -  
   loss: 0.2639  
94 29696/60000 [====>.....] - ETA: 1s -  
   loss: 0.2637  
95 30464/60000 [====>.....] - ETA: 1s -  
   loss: 0.2637  
96 31232/60000 [====>.....] - ETA: 1s -  
   loss: 0.2638  
97 32000/60000 [====>.....] - ETA: 1s -  
   loss: 0.2638  
98 33024/60000 [====>.....] - ETA: 1s -  
   loss: 0.2637  
99 34048/60000 [====>.....] - ETA: 1s -  
   loss: 0.2637  
100 34816/60000 [====>.....] - ETA: 1s -  
   loss: 0.2637  
101 35840/60000 [====>.....] - ETA: 1s -  
   loss: 0.2637
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102 36864/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2637  
103 37888/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2637  
104 38656/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2637  
105 39680/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2637  
106 40960/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2637  
107 42240/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2637  
108 43264/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
109 44288/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
110 45056/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
111 46080/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
112 47360/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2637  
113 48640/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2637  
114 49408/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
115 49664/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
116 50176/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
117 50688/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2636  
118 51456/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2635  
119 52224/60000 [=====>....] - ETA: 0s -  
    loss: 0.2635  
120 52992/60000 [=====>....] - ETA: 0s -  
    loss: 0.2635  
121 54016/60000 [=====>...] - ETA: 0s -  
    loss: 0.2636  
122 54784/60000 [=====>...] - ETA: 0s -  
    loss: 0.2635  
123 55552/60000 [=====>...] - ETA: 0s -  
    loss: 0.2635  
124 56320/60000 [=====>..] - ETA: 0s -  
    loss: 0.2634  
125 57088/60000 [=====>..] - ETA: 0s -  
    loss: 0.2634  
126 57856/60000 [=====>..] - ETA: 0s -  
    loss: 0.2634
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127 58368/60000 [=====>.] - ETA: 0s -  
    loss: 0.2635  
128 58880/60000 [=====>.] - ETA: 0s -  
    loss: 0.2634  
129 59648/60000 [=====>.] - ETA: 0s -  
    loss: 0.2634  
130 60000/60000 [=====] - 4s 63us/  
    step - loss: 0.2634 - val_loss: 0.2630  
131 Epoch 3/5  
132  
133   256/60000 [.....] - ETA: 3s -  
    loss: 0.2607  
134  1280/60000 [.....] - ETA: 3s -  
    loss: 0.2636  
135  2048/60000 [>.....] - ETA: 3s -  
    loss: 0.2637  
136  2816/60000 [>.....] - ETA: 3s -  
    loss: 0.2642  
137  3584/60000 [>.....] - ETA: 3s -  
    loss: 0.2638  
138  4352/60000 [=>.....] - ETA: 3s -  
    loss: 0.2639  
139  5376/60000 [=>.....] - ETA: 3s -  
    loss: 0.2635  
140  6400/60000 [==>.....] - ETA: 3s -  
    loss: 0.2637  
141  7424/60000 [==>.....] - ETA: 3s -  
    loss: 0.2631  
142  8448/60000 [===>.....] - ETA: 3s -  
    loss: 0.2627  
143  9728/60000 [===>.....] - ETA: 3s -  
    loss: 0.2627  
144 11008/60000 [====>.....] - ETA: 2s -  
    loss: 0.2630  
145 12032/60000 [====>.....] - ETA: 2s -  
    loss: 0.2631  
146 13056/60000 [====>.....] - ETA: 2s -  
    loss: 0.2633  
147 14080/60000 [====>.....] - ETA: 2s -  
    loss: 0.2633  
148 15104/60000 [====>.....] - ETA: 2s -  
    loss: 0.2634  
149 15872/60000 [====>.....] - ETA: 2s -  
    loss: 0.2633  
150 16384/60000 [====>.....] - ETA: 2s -  
    loss: 0.2632  
151 17152/60000 [====>.....] - ETA: 2s -  
    loss: 0.2631  
152 17920/60000 [====>.....] - ETA: 2s -  
    loss: 0.2632
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153 18688/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2631  
154 19456/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2631  
155 20480/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2630  
156 21504/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2630  
157 22528/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2631  
158 23552/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2632  
159 24576/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2633  
160 25344/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2634  
161 26112/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2635  
162 27136/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2634  
163 28160/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2634  
164 29184/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2634  
165 29952/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
166 30720/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2636  
167 31488/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2636  
168 32256/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2636  
169 33024/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
170 33792/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
171 34560/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2636  
172 35328/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
173 36352/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
174 37120/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
175 37888/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2635  
176 38400/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2636  
177 38912/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2636
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178 39680/60000 [=====>.....] - ETA: 1s -
    loss: 0.2636
179 40704/60000 [=====>.....] - ETA: 1s -
    loss: 0.2635
180 41728/60000 [=====>.....] - ETA: 1s -
    loss: 0.2636
181 42496/60000 [=====>.....] - ETA: 1s -
    loss: 0.2636
182 43264/60000 [=====>.....] - ETA: 1s -
    loss: 0.2635
183 44288/60000 [=====>.....] - ETA: 1s -
    loss: 0.2635
184 45056/60000 [=====>.....] - ETA: 1s -
    loss: 0.2634
185 45824/60000 [=====>.....] - ETA: 0s -
    loss: 0.2635
186 46592/60000 [=====>.....] - ETA: 0s -
    loss: 0.2634
187 47360/60000 [=====>.....] - ETA: 0s -
    loss: 0.2634
188 48384/60000 [=====>.....] - ETA: 0s -
    loss: 0.2634
189 49408/60000 [=====>.....] - ETA: 0s -
    loss: 0.2634
190 50432/60000 [=====>.....] - ETA: 0s -
    loss: 0.2634
191 51200/60000 [=====>.....] - ETA: 0s -
    loss: 0.2633
192 52224/60000 [=====>....] - ETA: 0s -
    loss: 0.2633
193 53248/60000 [=====>....] - ETA: 0s -
    loss: 0.2632
194 54272/60000 [=====>...] - ETA: 0s -
    loss: 0.2632
195 55040/60000 [=====>...] - ETA: 0s -
    loss: 0.2632
196 55808/60000 [=====>...] - ETA: 0s -
    loss: 0.2632
197 56576/60000 [=====>..] - ETA: 0s -
    loss: 0.2632
198 57600/60000 [=====>..] - ETA: 0s -
    loss: 0.2632
199 58624/60000 [=====>.] - ETA: 0s -
    loss: 0.2631
200 59648/60000 [=====>.] - ETA: 0s -
    loss: 0.2631
201 60000/60000 [=====] - 4s 71us/
    step - loss: 0.2631 - val_loss: 0.2628
202 Epoch 4/5
203

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204	256/60000	[.....]	- ETA: 4s -
	loss: 0.2669		
205	1024/60000	[.....]	- ETA: 4s -
	loss: 0.2632		
206	1792/60000	[.....]	- ETA: 4s -
	loss: 0.2625		
207	2560/60000	[>.....]	- ETA: 4s -
	loss: 0.2619		
208	3328/60000	[>.....]	- ETA: 4s -
	loss: 0.2624		
209	4096/60000	[=>.....]	- ETA: 4s -
	loss: 0.2625		
210	5120/60000	[=>.....]	- ETA: 3s -
	loss: 0.2626		
211	5888/60000	[=>.....]	- ETA: 3s -
	loss: 0.2630		
212	6656/60000	[==>.....]	- ETA: 3s -
	loss: 0.2635		
213	7424/60000	[==>.....]	- ETA: 3s -
	loss: 0.2631		
214	8448/60000	[===>.....]	- ETA: 3s -
	loss: 0.2629		
215	9472/60000	[===>.....]	- ETA: 3s -
	loss: 0.2630		
216	10240/60000	[===>.....]	- ETA: 3s -
	loss: 0.2631		
217	11008/60000	[===>.....]	- ETA: 3s -
	loss: 0.2634		
218	12032/60000	[====>.....]	- ETA: 3s -
	loss: 0.2634		
219	13056/60000	[====>.....]	- ETA: 3s -
	loss: 0.2633		
220	13824/60000	[====>.....]	- ETA: 3s -
	loss: 0.2633		
221	14592/60000	[====>.....]	- ETA: 2s -
	loss: 0.2633		
222	15616/60000	[====>.....]	- ETA: 2s -
	loss: 0.2633		
223	16640/60000	[====>.....]	- ETA: 2s -
	loss: 0.2635		
224	17664/60000	[====>.....]	- ETA: 2s -
	loss: 0.2635		
225	18688/60000	[====>.....]	- ETA: 2s -
	loss: 0.2634		
226	19456/60000	[====>.....]	- ETA: 2s -
	loss: 0.2633		
227	20480/60000	[====>.....]	- ETA: 2s -
	loss: 0.2633		
228	21248/60000	[====>.....]	- ETA: 2s -
	loss: 0.2633		

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229 22016/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2634  
230 23040/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2633  
231 24064/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2633  
232 25088/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2633  
233 25856/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2632  
234 26880/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2633  
235 27904/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2632  
236 28672/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2632  
237 29440/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
238 30208/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
239 30720/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
240 31488/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
241 32256/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
242 33024/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
243 33792/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
244 34560/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
245 35328/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
246 36096/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
247 36864/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
248 37632/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
249 38400/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
250 39424/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631  
251 40192/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
252 40960/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2632  
253 41728/60000 [=====>.....] - ETA: 1s -  
    loss: 0.2631
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254 42496/60000 [=====>.....] - ETA: 1s -
    loss: 0.2632
255 43264/60000 [=====>.....] - ETA: 1s -
    loss: 0.2632
256 44032/60000 [=====>.....] - ETA: 1s -
    loss: 0.2632
257 45056/60000 [=====>.....] - ETA: 1s -
    loss: 0.2631
258 46080/60000 [=====>.....] - ETA: 0s -
    loss: 0.2631
259 47104/60000 [=====>.....] - ETA: 0s -
    loss: 0.2631
260 47872/60000 [=====>.....] - ETA: 0s -
    loss: 0.2631
261 48640/60000 [=====>.....] - ETA: 0s -
    loss: 0.2630
262 49408/60000 [=====>.....] - ETA: 0s -
    loss: 0.2630
263 50176/60000 [=====>.....] - ETA: 0s -
    loss: 0.2630
264 50944/60000 [=====>.....] - ETA: 0s -
    loss: 0.2630
265 51712/60000 [=====>.....] - ETA: 0s -
    loss: 0.2631
266 52480/60000 [=====>.....] - ETA: 0s -
    loss: 0.2631
267 53248/60000 [=====>.....] - ETA: 0s -
    loss: 0.2631
268 54016/60000 [=====>...] - ETA: 0s -
    loss: 0.2631
269 54784/60000 [=====>...] - ETA: 0s -
    loss: 0.2631
270 55552/60000 [=====>...] - ETA: 0s -
    loss: 0.2631
271 56320/60000 [=====>..] - ETA: 0s -
    loss: 0.2631
272 57088/60000 [=====>..] - ETA: 0s -
    loss: 0.2631
273 57856/60000 [=====>..] - ETA: 0s -
    loss: 0.2631
274 58624/60000 [=====>.] - ETA: 0s -
    loss: 0.2631
275 59392/60000 [=====>.] - ETA: 0s -
    loss: 0.2631
276 60000/60000 [=====] - 4s 72us/
    step - loss: 0.2631 - val_loss: 0.2628
277 Epoch 5/5
278
279 256/60000 [.....] - ETA: 3s -
    loss: 0.2586

```

```
280 1024/60000 [.....] - ETA: 3s -  
    loss: 0.2640  
281 1792/60000 [.....] - ETA: 4s -  
    loss: 0.2638  
282 2560/60000 [>.....] - ETA: 4s -  
    loss: 0.2634  
283 3328/60000 [>.....] - ETA: 4s -  
    loss: 0.2635  
284 4096/60000 [=>.....] - ETA: 4s -  
    loss: 0.2637  
285 5120/60000 [=>.....] - ETA: 3s -  
    loss: 0.2642  
286 5888/60000 [=>.....] - ETA: 3s -  
    loss: 0.2639  
287 6912/60000 [==>.....] - ETA: 3s -  
    loss: 0.2636  
288 7936/60000 [==>.....] - ETA: 3s -  
    loss: 0.2639  
289 8960/60000 [===>.....] - ETA: 3s -  
    loss: 0.2639  
290 9984/60000 [===>.....] - ETA: 3s -  
    loss: 0.2636  
291 10752/60000 [====>.....] - ETA: 3s -  
    loss: 0.2635  
292 11520/60000 [====>.....] - ETA: 3s -  
    loss: 0.2637  
293 12544/60000 [====>.....] - ETA: 3s -  
    loss: 0.2635  
294 13568/60000 [====>.....] - ETA: 3s -  
    loss: 0.2634  
295 14592/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2635  
296 15360/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2636  
297 16384/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2635  
298 17408/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2636  
299 18432/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2634  
300 19200/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2632  
301 19968/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2632  
302 20736/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2631  
303 21760/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2631  
304 22784/60000 [=====>.....] - ETA: 2s -  
    loss: 0.2631
```

```

305 23808/60000 [=====>.....] - ETA: 2s -
    loss: 0.2631
306 24576/60000 [=====>.....] - ETA: 2s -
    loss: 0.2632
307 25600/60000 [=====>.....] - ETA: 2s -
    loss: 0.2630
308 26624/60000 [=====>.....] - ETA: 2s -
    loss: 0.2630
309 27648/60000 [=====>.....] - ETA: 2s -
    loss: 0.2630
310 28672/60000 [=====>.....] - ETA: 2s -
    loss: 0.2629
311 29440/60000 [=====>.....] - ETA: 1s -
    loss: 0.2629
312 30464/60000 [=====>.....] - ETA: 1s -
    loss: 0.2629
313 31488/60000 [=====>.....] - ETA: 1s -
    loss: 0.2629
314 32256/60000 [=====>.....] - ETA: 1s -
    loss: 0.2629
315 33280/60000 [=====>.....] - ETA: 1s -
    loss: 0.2628
316 34048/60000 [=====>.....] - ETA: 1s -
    loss: 0.2628
317 35072/60000 [=====>.....] - ETA: 1s -
    loss: 0.2627
318 36096/60000 [=====>.....] - ETA: 1s -
    loss: 0.2627
319 37120/60000 [=====>.....] - ETA: 1s -
    loss: 0.2627
320 38144/60000 [=====>.....] - ETA: 1s -
    loss: 0.2628
321 39168/60000 [=====>.....] - ETA: 1s -
    loss: 0.2628
322 40192/60000 [=====>.....] - ETA: 1s -
    loss: 0.2628
323 40960/60000 [=====>.....] - ETA: 1s -
    loss: 0.2629
324 41984/60000 [=====>.....] - ETA: 1s -
    loss: 0.2628
325 43008/60000 [=====>.....] - ETA: 1s -
    loss: 0.2629
326 44032/60000 [=====>.....] - ETA: 1s -
    loss: 0.2630
327 45056/60000 [=====>.....] - ETA: 0s -
    loss: 0.2629
328 46080/60000 [=====>.....] - ETA: 0s -
    loss: 0.2629
329 47104/60000 [=====>.....] - ETA: 0s -
    loss: 0.2630

```

```
330 48128/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2629  
331 48896/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2629  
332 49920/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2629  
333 50944/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2630  
334 51968/60000 [=====>.....] - ETA: 0s -  
    loss: 0.2630  
335 52736/60000 [=====>....] - ETA: 0s -  
    loss: 0.2630  
336 53760/60000 [=====>....] - ETA: 0s -  
    loss: 0.2629  
337 54784/60000 [=====>...] - ETA: 0s -  
    loss: 0.2629  
338 55808/60000 [=====>...] - ETA: 0s -  
    loss: 0.2630  
339 56576/60000 [=====>..] - ETA: 0s -  
    loss: 0.2630  
340 57600/60000 [=====>..] - ETA: 0s -  
    loss: 0.2630  
341 58624/60000 [=====>.] - ETA: 0s -  
    loss: 0.2630  
342 59648/60000 [=====>.] - ETA: 0s -  
    loss: 0.2630  
343 60000/60000 [=====] - 4s 66us/  
    step - loss: 0.2630 - val_loss: 0.2629  
344  
345 Process finished with exit code 0  
346
```