```
1 ssh: //root@103.254.67.181:10006/usr/bin/
   python -u /home/sunfengzhen/pycharm/
   keras_ti tani c/keras_ti tani c. py
 2 Using TensorFlow backend.
 3 ###########Ioad dataset
   ###############
 4 saved to processed_titanic.csv
 5 ############model train
   #################
 6 model.metrics_names = ['loss', 'acc']
 7
                                 Output
 8 Layer (type)
   Shape
                       Param #
10 dense_1 (Dense)
                                 (None, 40
                    400
11
12 dense_2 (Dense)
                                 (None, 30
                    1230
13
```

14	dense_3 (Dense) (None, 1
) 31
15	=======================================
	=======================================
16	Total params: 1,661
17	Trainable params: 1,661
18	Non-trainable params: O
19	
20	Train on 837 samples, validate on 210
	samples
21	Epoch 1/10000
22	2019-06-11 01:01:43.901655: I tensorflow
	/core/platform/cpu_feature_guard.cc:141
] Your CPU supports instructions that
	this TensorFlow binary was not compiled
	to use: AVX2 FMA
23	2019-06-11 01:01:44.178141: I tensorflow
	/core/common_runtime/gpu/gpu_device.cc:
	1432] Found device O with properties:
24	name: GeForce GTX 1080 Ti major: 6 minor
	: 1 memoryClockRate(GHz): 1.582
25	pciBusID: 0000:02:00.0
26	total Memory: 10.92GiB freeMemory: 10.

- 26 76Gi B
- 27 2019-06-11 01:01:44.178207: I tensorflow /core/common_runtime/gpu/gpu_device.cc: 1511] Adding visible gpu devices: 0
- 28 2019-06-11 01:01:44.606523: I tensorflow /core/common_runtime/gpu/gpu_device.cc: 982] Device interconnect StreamExecutor with strength 1 edge matrix:
- 29 2019-06-11 01:01:44.606602: I tensorflow /core/common_runtime/gpu/gpu_device.cc: 988] 0
- 30 2019-06-11 01:01:44.606614: I tensorflow /core/common_runtime/gpu/gpu_device.cc: 1001] 0: N
- 2019-06-11 01:01:44.607002: I tensorflow /core/common_runtime/gpu/gpu_device.cc: 1115] Created TensorFlow device (/job: localhost/replica:0/task:0/device:GPU:0 with 10409 MB memory) -> physical GPU (device: 0, name: GeForce GTX 1080 Ti, pci bus id: 0000:02:00.0, compute capability: 6.1)
- 32 2s loss: 0.6527 acc: 0.6774 val_loss: 0.6225 val_acc: 0.7143

```
33 Epoch 2/10000
   - 0s - loss: 0.5826 - acc: 0.7515 -
34
   val_loss: 0.5747 - val_acc: 0.7333
35 Epoch 3/10000
   - 0s - loss: 0.5291 - acc: 0.7885 -
36
   val_loss: 0.5459 - val_acc: 0.7524
37 Epoch 4/10000
   - 0s - loss: 0.4942 - acc: 0.7969 -
38
   val_loss: 0.5433 - val_acc: 0.7333
39 Epoch 5/10000
   - 0s - loss: 0.4805 - acc: 0.7658 -
40
   val_loss: 0.5319 - val_acc: 0.7524
41 Epoch 6/10000
   - 0s - loss: 0.4709 - acc: 0.7945 -
42
  val_loss: 0.5311 - val_acc: 0.7381
43 Epoch 7/10000
   - 0s - loss: 0.4661 - acc: 0.7778 -
44
  val_loss: 0.5242 - val_acc: 0.7571
45 Epoch 8/10000
   - 0s - loss: 0.4614 - acc: 0.7802 -
46
   val_loss: 0.5228 - val_acc: 0.7619
47 Epoch 9/10000
   - 0s - loss: 0.4591 - acc: 0.7861 -
48
```

val_loss: 0.5192 - val_acc: 0.7619

49 Epoch 10/10000 - 0s - loss: 0.4549 - acc: 0.7909 -50 val_loss: 0.5151 - val_acc: 0.7476 51 Epoch 11/10000 - 0s - loss: 0.4534 - acc: 0.7909 -52 val_loss: 0.5206 - val_acc: 0.7714 53 Epoch 12/10000 - 0s - loss: 0.4530 - acc: 0.7885 -54 val_loss: 0.5101 - val_acc: 0.7524 55 Epoch 13/10000 - 0s - loss: 0.4491 - acc: 0.7969 -56 val_loss: 0.5088 - val_acc: 0.7667 57 Epoch 14/10000 - 0s - loss: 0.4477 - acc: 0.7969 -58 val_loss: 0.5053 - val_acc: 0.7667 59 Epoch 15/10000 - 0s - loss: 0.4455 - acc: 0.8005 -60 val_loss: 0.5089 - val_acc: 0.7762 61 Epoch 16/10000 - 0s - loss: 0.4456 - acc: 0.8005 -62 val_loss: 0.5026 - val_acc: 0.7810 63 Epoch 17/10000 - 0s - loss: 0.4424 - acc: 0.7981 -64

val_loss: 0.4983 - val_acc: 0.7714

- 65 Epoch 18/10000
 66 0s loss: 0.4418 acc: 0.8065 val_loss: 0.4955 val_acc: 0.7762
 67 Epoch 19/10000
- 68 0s loss: 0.4410 acc: 0.8005 val_loss: 0.4999 val_acc: 0.7762
- 69 Epoch 20/10000
- 70 0s loss: 0.4401 acc: 0.7981 val_loss: 0.5009 val_acc: 0.7762
- 71 Epoch 21/10000
- 72 0s loss: 0.4378 acc: 0.8053 val_loss: 0.4966 val_acc: 0.7810
- 73 Epoch 22/10000
- 74 0s loss: 0.4375 acc: 0.8017 val_loss: 0.5003 val_acc: 0.7762
- 75 Epoch 23/10000
- 76 0s loss: 0.4370 acc: 0.8076 val_loss: 0.4936 val_acc: 0.7714
- 77 Epoch 24/10000
- 78 0s loss: 0.4375 acc: 0.8041 val_loss: 0.4956 val_acc: 0.7905
- 79 Epoch 25/10000
- 80 0s loss: 0.4357 acc: 0.8136 val_loss: 0.4918 val_acc: 0.7714

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81 Epoch 26/10000
   - 0s - loss: 0.4335 - acc: 0.8076 -
82 I
   val_loss: 0.4933 - val_acc: 0.7762
83 Epoch 27/10000
   - 0s - loss: 0.4329 - acc: 0.8088 -
84 I
   val_loss: 0.4905 - val_acc: 0.7857
85 Epoch 28/10000
86 - 0s - loss: 0.4332 - acc: 0.8136 -
   val_loss: 0.4904 - val_acc: 0.7667
87 Epoch 29/10000
88 - 0s - loss: 0.4321 - acc: 0.7993 -
   val_loss: 0.4910 - val_acc: 0.7667
89 Epoch 30/10000
   - 0s - loss: 0.4320 - acc: 0.8065 -
90 I
   val_loss: 0.4933 - val_acc: 0.7714
91 Epoch 31/10000
92 - 0s - loss: 0.4321 - acc: 0.8041 -
   val loss: 0.4893 - val_acc: 0.7762
93 Epoch 32/10000
94 - 0s - loss: 0.4326 - acc: 0.8088 -
   val_loss: 0.4940 - val_acc: 0.7810
95 Epoch 33/10000
   - 0s - loss: 0.4312 - acc: 0.8160 -
96
   val_loss: 0.4905 - val_acc: 0.7667
```

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97 Epoch 34/10000
98 - 0s - loss: 0.4338 - acc: 0.8076 -
   val_loss: 0.4933 - val_acc: 0.7857
99 Epoch 35/10000
100 - 0s - loss: 0.4299 - acc: 0.8053 -
   val_loss: 0.4902 - val_acc: 0.7762
101 Epoch 36/10000
102 - 0s - loss: 0.4287 - acc: 0.8053 -
   val_loss: 0.4897 - val_acc: 0.7762
103 Epoch 37/10000
104 - 0s - loss: 0.4285 - acc: 0.8100 -
   val_loss: 0.5146 - val_acc: 0.7810
105 Epoch 38/10000
    - 0s - loss: 0.4314 - acc: 0.8029 -
106 l
   val_loss: 0.4896 - val_acc: 0.7667
107 Epoch 39/10000
108 - 0s - loss: 0.4303 - acc: 0.8076 -
   val_loss: 0.4860 - val_acc: 0.7762
109 Epoch 40/10000
110 - 0s - loss: 0.4285 - acc: 0.8124 -
   val_loss: 0.5087 - val_acc: 0.8000
111 Epoch 41/10000
112 - 0s - loss: 0.4272 - acc: 0.8088 -
    val_loss: 0.4871 - val_acc: 0.7762
```

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113 Epoch 42/10000
114 - 0s - loss: 0.4301 - acc: 0.8076 -
   val_loss: 0.4883 - val_acc: 0.7762
115 Epoch 43/10000
116 - 0s - loss: 0.4267 - acc: 0.8112 -
   val_loss: 0.4922 - val_acc: 0.7762
117 Epoch 44/10000
118 - 0s - loss: 0.4291 - acc: 0.8160 -
   val_loss: 0.4869 - val_acc: 0.7762
119 Epoch 45/10000
120 - 0s - loss: 0.4272 - acc: 0.8065 -
   val_loss: 0.5021 - val_acc: 0.7905
121 Epoch 46/10000
122 - 0s - loss: 0.4301 - acc: 0.8065 -
   val_loss: 0.4882 - val_acc: 0.7762
123 Epoch 47/10000
124 - 0s - Ioss: 0.4254 - acc: 0.8100 -
   val_loss: 0.5086 - val_acc: 0.8000
125 Epoch 48/10000
126 - 0s - loss: 0.4282 - acc: 0.8112 -
   val_loss: 0.4951 - val_acc: 0.7762
127 Epoch 49/10000
128 - 0s - loss: 0.4274 - acc: 0.8124 -
    val_loss: 0.4861 - val_acc: 0.7667
```

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129 Epoch 50/10000
130 - 0s - loss: 0.4237 - acc: 0.8112 -
   val_loss: 0.4907 - val_acc: 0.7667
131 Epoch 51/10000
132 - 0s - loss: 0.4268 - acc: 0.8172 -
   val_loss: 0.4883 - val_acc: 0.7714
133 Epoch 52/10000
134 - 0s - loss: 0.4268 - acc: 0.8076 -
   val_loss: 0.4869 - val_acc: 0.7714
135 Epoch 53/10000
136 - 0s - loss: 0.4266 - acc: 0.8124 -
   val_loss: 0.4954 - val_acc: 0.7857
137 Epoch 54/10000
138 - 0s - loss: 0.4273 - acc: 0.8112 -
   val_loss: 0.5067 - val_acc: 0.7952
139 Epoch 55/10000
140 - 0s - loss: 0.4278 - acc: 0.8160 -
   val_loss: 0.4911 - val_acc: 0.7667
141 Epoch 56/10000
142 - 0s - loss: 0.4261 - acc: 0.8112 -
   val_loss: 0.4901 - val_acc: 0.7667
143 Epoch 57/10000
144 - 0s - loss: 0.4273 - acc: 0.8160 -
    val_loss: 0.4925 - val_acc: 0.7762
```

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145 Epoch 58/10000
146 - 0s - loss: 0.4259 - acc: 0.8160 -
   val_loss: 0.4922 - val_acc: 0.7667
147 Epoch 59/10000
148 - 0s - loss: 0.4257 - acc: 0.8136 -
   val_loss: 0.4866 - val_acc: 0.7762
149 Epoch 60/10000
150 - 0s - loss: 0.4246 - acc: 0.8160 -
   val_loss: 0.4910 - val_acc: 0.7667
151 Epoch 61/10000
152 - 0s - loss: 0.4221 - acc: 0.8112 -
   val_loss: 0.4853 - val_acc: 0.7762
153 Epoch 62/10000
154 - 0s - loss: 0.4240 - acc: 0.8136 -
   val_loss: 0.4985 - val_acc: 0.7762
155 Epoch 63/10000
156 - 0s - loss: 0.4245 - acc: 0.8100 -
   val_loss: 0.5002 - val_acc: 0.7905
157 Epoch 64/10000
158 - 0s - loss: 0.4242 - acc: 0.8124 -
   val_loss: 0.4924 - val_acc: 0.7810
159 Epoch 65/10000
160 - 0s - loss: 0.4242 - acc: 0.8172 -
    val_loss: 0.4849 - val_acc: 0.7762
```

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161 Epoch 66/10000
162 - 0s - loss: 0.4250 - acc: 0.8112 -
   val_loss: 0.4880 - val_acc: 0.7810
163 Epoch 67/10000
164 - 0s - loss: 0.4230 - acc: 0.8196 -
   val_loss: 0.4923 - val_acc: 0.7762
165 Epoch 68/10000
166 - 0s - loss: 0.4227 - acc: 0.8184 -
   val_loss: 0.4844 - val_acc: 0.7762
167 Epoch 69/10000
168 - 0s - loss: 0.4229 - acc: 0.8184 -
   val_loss: 0.4843 - val_acc: 0.7714
169 Epoch 70/10000
170 - 0s - loss: 0.4246 - acc: 0.8136 -
   val_loss: 0.4850 - val_acc: 0.7667
171 Epoch 71/10000
172 - 0s - loss: 0.4231 - acc: 0.8136 -
   val_loss: 0.4882 - val_acc: 0.7762
173 Epoch 72/10000
174 - 0s - loss: 0.4224 - acc: 0.8244 -
   val_loss: 0.5025 - val_acc: 0.7905
175 Epoch 73/10000
176 - 0s - loss: 0.4205 - acc: 0.8208 -
    val_loss: 0.4861 - val_acc: 0.7762
```

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177 Epoch 74/10000
178 - 0s - loss: 0.4210 - acc: 0.8256 -
   val_loss: 0.4878 - val_acc: 0.7762
179 Epoch 75/10000
180 - 0s - loss: 0.4223 - acc: 0.8148 -
   val_loss: 0.4866 - val_acc: 0.7714
181 Epoch 76/10000
    - 0s - loss: 0.4213 - acc: 0.8148 -
182 l
   val_loss: 0.5012 - val_acc: 0.7810
183 Epoch 77/10000
184 - 0s - loss: 0.4223 - acc: 0.8172 -
   val_loss: 0.4872 - val_acc: 0.7810
185 Epoch 78/10000
    - 0s - loss: 0.4227 - acc: 0.8148 -
186 I
   val_loss: 0.4869 - val_acc: 0.7714
187 Epoch 79/10000
188 - 0s - loss: 0.4204 - acc: 0.8184 -
   val_loss: 0.4885 - val_acc: 0.7571
189 Epoch 80/10000
190 - 0s - loss: 0.4223 - acc: 0.8208 -
   val_loss: 0.4846 - val_acc: 0.7762
191 Epoch 81/10000
192 - 0s - loss: 0.4209 - acc: 0.8184 -
    val_loss: 0.4866 - val_acc: 0.7714
```

```
193 Epoch 82/10000
194 - 0s - loss: 0.4207 - acc: 0.8208 -
   val_loss: 0.5076 - val_acc: 0.7857
195 Epoch 83/10000
    - 0s - loss: 0.4225 - acc: 0.8100 -
196 l
   val_loss: 0.4991 - val_acc: 0.7810
197 Epoch 84/10000
198 - 0s - loss: 0.4217 - acc: 0.8196 -
    val_loss: 0.4908 - val_acc: 0.7524
199 Epoch 85/10000
200 - 0s - loss: 0.4216 - acc: 0.8184 -
    val_loss: 0.4868 - val_acc: 0.7619
201 Epoch 86/10000
202 - 0s - loss: 0.4200 - acc: 0.8160 -
   val_loss: 0.4866 - val_acc: 0.7762
203 Epoch 87/10000
204 - 0s - loss: 0.4185 - acc: 0.8268 -
   val_loss: 0.4881 - val_acc: 0.7571
205 Epoch 88/10000
206 - 0s - loss: 0.4200 - acc: 0.8208 -
   val_loss: 0.4901 - val_acc: 0.7667
207 Epoch 89/10000
208 - 0s - loss: 0.4199 - acc: 0.8244 -
    val_loss: 0.4914 - val_acc: 0.7762
```

```
209 Epoch 90/10000
210 - 0s - loss: 0.4184 - acc: 0.8196 -
    val_loss: 0.4877 - val_acc: 0.7667
211 Epoch 91/10000
    - 0s - loss: 0.4200 - acc: 0.8220 -
212 I
    val_loss: 0.4928 - val_acc: 0.7714
213 Epoch 92/10000
214 - 0s - loss: 0.4189 - acc: 0.8196 -
    val_loss: 0.4854 - val_acc: 0.7619
215 Epoch 93/10000
216 - 0s - loss: 0.4200 - acc: 0.8208 -
    val_loss: 0.4847 - val_acc: 0.7714
217 Epoch 94/10000
218 - 0s - loss: 0.4184 - acc: 0.8172 -
    val_loss: 0.4939 - val_acc: 0.7810
219 Epoch 95/10000
220 - 0s - loss: 0.4181 - acc: 0.8280 -
    val_loss: 0.4926 - val_acc: 0.7762
221 Epoch 96/10000
222 - 0s - loss: 0.4175 - acc: 0.8208 -
    val_loss: 0.4918 - val_acc: 0.7762
223 Epoch 97/10000
224 - 0s - loss: 0.4169 - acc: 0.8244 -
    val_loss: 0.4903 - val_acc: 0.7762
```

```
225 Epoch 98/10000
226 - 0s - loss: 0.4181 - acc: 0.8256 -
    val_loss: 0.4904 - val_acc: 0.7762
227 Epoch 99/10000
    - 0s - loss: 0.4165 - acc: 0.8280 -
228 I
    val_loss: 0.4913 - val_acc: 0.7810
229 Epoch 100/10000
230 - 0s - loss: 0.4136 - acc: 0.8220 -
    val_loss: 0.4945 - val_acc: 0.7524
231 Epoch 101/10000
232 - 0s - loss: 0.4176 - acc: 0.8172 -
    val_loss: 0.4842 - val_acc: 0.7667
233 Epoch 102/10000
234 - 0s - loss: 0.4157 - acc: 0.8268 -
    val_loss: 0.4862 - val_acc: 0.7762
235 Epoch 103/10000
236 - 0s - loss: 0.4166 - acc: 0.8268 -
    val_loss: 0.4799 - val_acc: 0.7571
237 Epoch 104/10000
238 - 0s - loss: 0.4153 - acc: 0.8256 -
    val_loss: 0.4894 - val_acc: 0.7571
239 Epoch 105/10000
240 - 0s - loss: 0.4180 - acc: 0.8208 -
    val_loss: 0.4880 - val_acc: 0.7762
```

```
241 Epoch 106/10000
    - 0s - loss: 0.4152 - acc: 0.8256 -
242 I
    val_loss: 0.4888 - val_acc: 0.7619
243 Epoch 107/10000
    - 0s - loss: 0.4155 - acc: 0.8220 -
244 I
    val_loss: 0.4925 - val_acc: 0.7762
245 Epoch 108/10000
246 - 0s - loss: 0.4167 - acc: 0.8280 -
    val_loss: 0.4885 - val_acc: 0.7714
247 Epoch 109/10000
248 - 0s - loss: 0.4149 - acc: 0.8196 -
    val_loss: 0.4939 - val_acc: 0.7762
249 Epoch 110/10000
250 - 0s - loss: 0.4168 - acc: 0.8244 -
    val_loss: 0.4893 - val_acc: 0.7762
251 Epoch 111/10000
252 - 0s - loss: 0.4152 - acc: 0.8196 -
    val_loss: 0.4807 - val_acc: 0.7714
253 Epoch 112/10000
254 - 0s - loss: 0.4161 - acc: 0.8256 -
    val_loss: 0.4902 - val_acc: 0.7762
255 Epoch 113/10000
    - 0s - Loss: 0.4155 - acc: 0.8256 -
256
    val_loss: 0.4985 - val_acc: 0.7810
```

```
257 Epoch 114/10000
    - 0s - loss: 0.4155 - acc: 0.8268 -
258 I
    val_loss: 0.4863 - val_acc: 0.7714
259 Epoch 115/10000
    - 0s - loss: 0.4142 - acc: 0.8292 -
260 I
    val_loss: 0.4880 - val_acc: 0.7714
261 Epoch 116/10000
    - 0s - loss: 0.4081 - acc: 0.8256 -
262
    val_loss: 0.5266 - val_acc: 0.7714
263 Epoch 117/10000
264 - 0s - loss: 0.4165 - acc: 0.8208 -
    val_loss: 0.5024 - val_acc: 0.7810
265 Epoch 118/10000
    - 0s - loss: 0.4158 - acc: 0.8256 -
266 l
    val_loss: 0.4817 - val_acc: 0.7714
267 Epoch 119/10000
268 - 0s - loss: 0.4151 - acc: 0.8268 -
    val_loss: 0.4809 - val_acc: 0.7714
269 Epoch 120/10000
270 - 0s - loss: 0.4134 - acc: 0.8232 -
    val_loss: 0.4866 - val_acc: 0.7714
271 Epoch 121/10000
272 - 0s - loss: 0.4134 - acc: 0.8256 -
    val_loss: 0.5016 - val_acc: 0.7810
```

```
273 Epoch 122/10000
274 - 0s - loss: 0.4142 - acc: 0.8292 -
    val_loss: 0.4839 - val_acc: 0.7714
275 Epoch 123/10000
    - 0s - loss: 0.4136 - acc: 0.8268 -
276 l
    val_loss: 0.4808 - val_acc: 0.7714
277 Epoch 124/10000
278 - 0s - loss: 0.4127 - acc: 0.8268 -
    val_loss: 0.4850 - val_acc: 0.7714
279 Epoch 125/10000
280 - 0s - loss: 0.4129 - acc: 0.8292 -
    val_loss: 0.4867 - val_acc: 0.7667
281 Epoch 126/10000
282 - 0s - loss: 0.4137 - acc: 0.8244 -
    val_loss: 0.4831 - val_acc: 0.7714
283 Epoch 127/10000
284 - 0s - loss: 0.4133 - acc: 0.8256 -
    val_loss: 0.4786 - val_acc: 0.7714
285 Epoch 128/10000
286 - 0s - loss: 0.4106 - acc: 0.8256 -
    val_loss: 0.4922 - val_acc: 0.7762
287 Epoch 129/10000
288 - 0s - loss: 0.4121 - acc: 0.8268 -
    val_loss: 0.4822 - val_acc: 0.7714
```

```
289 Epoch 130/10000
290 - 0s - loss: 0.4114 - acc: 0.8244 -
    val_loss: 0.4767 - val_acc: 0.7762
291 Epoch 131/10000
    - 0s - loss: 0.4111 - acc: 0.8351 -
292 I
    val_loss: 0.4934 - val_acc: 0.7714
293 Epoch 132/10000
294 - 0s - loss: 0.4135 - acc: 0.8220 -
    val_loss: 0.4830 - val_acc: 0.7714
295 Epoch 133/10000
296 - 0s - loss: 0.4098 - acc: 0.8256 -
    val_loss: 0.4847 - val_acc: 0.7762
297 Epoch 134/10000
    - 0s - loss: 0.4115 - acc: 0.8280 -
298 I
    val_loss: 0.4772 - val_acc: 0.7762
299 Epoch 135/10000
300 - 0s - loss: 0.4090 - acc: 0.8232 -
    val_loss: 0.5040 - val_acc: 0.7714
301 Epoch 136/10000
302 - 0s - loss: 0.4115 - acc: 0.8315 -
    val_loss: 0.5048 - val_acc: 0.7714
303 Epoch 137/10000
304 - 0s - loss: 0.4110 - acc: 0.8256 -
    val_loss: 0.5093 - val_acc: 0.7810
```

```
305 Epoch 138/10000
    - 0s - loss: 0.4115 - acc: 0.8220 -
306
   val_loss: 0.4881 - val_acc: 0.7619
307 Epoch 139/10000
    - 0s - loss: 0.4107 - acc: 0.8220 -
308
   val_loss: 0.4829 - val_acc: 0.7762
309 Epoch 140/10000
310 - 0s - loss: 0.4086 - acc: 0.8280 -
   val_loss: 0.4898 - val_acc: 0.7714
311
312 Epoch 00140: ReduceLROnPlateau reducing
     learning rate to 0.00010000000475.
313 Epoch 141/10000
    - 0s - loss: 0.4067 - acc: 0.8292 -
314 I
   val_loss: 0.4864 - val_acc: 0.7619
315 Epoch 142/10000
316 - 0s - loss: 0.4059 - acc: 0.8268 -
   val_loss: 0.4855 - val_acc: 0.7619
317 Epoch 143/10000
318 - 0s - loss: 0.4051 - acc: 0.8268 -
   val_loss: 0.4848 - val_acc: 0.7619
319 Epoch 144/10000
320 - 0s - loss: 0.4050 - acc: 0.8256 -
    val_loss: 0.4842 - val_acc: 0.7619
```

```
321 Epoch 145/10000
322 - 0s - loss: 0.4049 - acc: 0.8268 -
   val_loss: 0.4843 - val_acc: 0.7619
323 Epoch 146/10000
324 - 0s - loss: 0.4047 - acc: 0.8256 -
   val_loss: 0.4835 - val_acc: 0.7619
325 Epoch 147/10000
326 - 0s - loss: 0.4045 - acc: 0.8256 -
   val_loss: 0.4834 - val_acc: 0.7619
327 Epoch 148/10000
328 - 0s - loss: 0.4045 - acc: 0.8256 -
   val_loss: 0.4831 - val_acc: 0.7619
329 Epoch 149/10000
330 - 0s - loss: 0.4045 - acc: 0.8268 -
   val_loss: 0.4828 - val_acc: 0.7619
331 Epoch 150/10000
332 - 0s - loss: 0.4044 - acc: 0.8256 -
   val_loss: 0.4831 - val_acc: 0.7619
333 Epoch 151/10000
334 - 0s - loss: 0.4044 - acc: 0.8280 -
   val_loss: 0.4826 - val_acc: 0.7619
335 Epoch 152/10000
336 - 0s - loss: 0.4045 - acc: 0.8256 -
    val_loss: 0.4822 - val_acc: 0.7619
```

```
337 Epoch 153/10000
    - 0s - loss: 0.4045 - acc: 0.8280 -
338
   val_loss: 0.4821 - val_acc: 0.7619
339 Epoch 154/10000
340 - 0s - loss: 0.4043 - acc: 0.8256 -
   val_loss: 0.4816 - val_acc: 0.7619
341 Epoch 155/10000
342 - 0s - loss: 0.4045 - acc: 0.8268 -
   val_loss: 0.4824 - val_acc: 0.7619
343 Epoch 156/10000
344 - 0s - loss: 0.4041 - acc: 0.8292 -
   val_loss: 0.4826 - val_acc: 0.7619
345 Epoch 157/10000
    - 0s - loss: 0.4043 - acc: 0.8280 -
346 I
   val_loss: 0.4830 - val_acc: 0.7667
347 Epoch 158/10000
348 - 0s - loss: 0.4043 - acc: 0.8292 -
   val_loss: 0.4828 - val_acc: 0.7619
349 Epoch 159/10000
350 - 0s - loss: 0.4043 - acc: 0.8256 -
   val_loss: 0.4825 - val_acc: 0.7619
351 Epoch 160/10000
352 - 0s - loss: 0.4044 - acc: 0.8268 -
    val_loss: 0.4828 - val_acc: 0.7619
```

```
353 Epoch 161/10000
354 - 0s - loss: 0.4041 - acc: 0.8268 -
   val_loss: 0.4830 - val_acc: 0.7667
355 Epoch 162/10000
    - 0s - loss: 0.4042 - acc: 0.8268 -
356 l
   val_loss: 0.4830 - val_acc: 0.7667
357 Epoch 163/10000
358 - 0s - loss: 0.4043 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
359 Epoch 164/10000
360 - 0s - loss: 0.4040 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
361 Epoch 165/10000
362 - 0s - loss: 0.4043 - acc: 0.8268 -
   val_loss: 0.4826 - val_acc: 0.7619
363 Epoch 166/10000
364 - 0s - loss: 0.4040 - acc: 0.8280 -
   val_loss: 0.4823 - val_acc: 0.7619
365 Epoch 167/10000
366 - 0s - loss: 0.4041 - acc: 0.8280 -
   val_loss: 0.4820 - val_acc: 0.7619
367 Epoch 168/10000
368 - 0s - loss: 0.4040 - acc: 0.8292 -
    val_loss: 0.4825 - val_acc: 0.7667
```

```
369 Epoch 169/10000
370 - 0s - loss: 0.4041 - acc: 0.8292 -
   val_loss: 0.4822 - val_acc: 0.7619
371 Epoch 170/10000
372 - 0s - loss: 0.4040 - acc: 0.8280 -
   val_loss: 0.4818 - val_acc: 0.7619
373 Epoch 171/10000
374 - 0s - loss: 0.4041 - acc: 0.8268 -
   val_loss: 0.4818 - val_acc: 0.7619
375 Epoch 172/10000
376 - 0s - loss: 0.4040 - acc: 0.8280 -
   val_loss: 0.4820 - val_acc: 0.7619
377 Epoch 173/10000
378 - 0s - loss: 0.4039 - acc: 0.8280 -
   val_loss: 0.4824 - val_acc: 0.7667
379 Epoch 174/10000
380 - 0s - loss: 0.4039 - acc: 0.8280 -
   val_loss: 0.4821 - val_acc: 0.7619
381 Epoch 175/10000
382 - 0s - loss: 0.4041 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
383 Epoch 176/10000
384 - 0s - loss: 0.4039 - acc: 0.8292 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
385 Epoch 177/10000
    - 0s - loss: 0.4038 - acc: 0.8292 -
386 l
   val_loss: 0.4813 - val_acc: 0.7619
387 Epoch 178/10000
    - 0s - loss: 0.4041 - acc: 0.8256 -
388 I
   val_loss: 0.4818 - val_acc: 0.7619
389 Epoch 179/10000
390 - 0s - loss: 0.4039 - acc: 0.8268 -
   val_loss: 0.4818 - val_acc: 0.7619
391 Epoch 180/10000
392 - 0s - loss: 0.4038 - acc: 0.8280 -
    val_loss: 0.4822 - val_acc: 0.7619
393 Epoch 181/10000
    - 0s - loss: 0.4037 - acc: 0.8292 -
394 I
   val_loss: 0.4817 - val_acc: 0.7619
395 Epoch 182/10000
396 - 0s - loss: 0.4038 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
397 Epoch 183/10000
398 - 0s - loss: 0.4039 - acc: 0.8268 -
   val_loss: 0.4823 - val_acc: 0.7762
399 Epoch 184/10000
400 - 0s - loss: 0.4036 - acc: 0.8280 -
    val_loss: 0.4817 - val_acc: 0.7619
```

```
401 Epoch 185/10000
    - 0s - loss: 0.4037 - acc: 0.8256 -
402 I
   val_loss: 0.4815 - val_acc: 0.7619
403 Epoch 186/10000
404 - 0s - loss: 0.4039 - acc: 0.8268 -
   val_loss: 0.4812 - val_acc: 0.7619
405 Epoch 187/10000
406 - 0s - loss: 0.4037 - acc: 0.8256 -
   val_loss: 0.4811 - val_acc: 0.7619
407 Epoch 188/10000
408 - 0s - loss: 0.4036 - acc: 0.8256 -
   val_loss: 0.4813 - val_acc: 0.7619
409 Epoch 189/10000
410 - 0s - loss: 0.4038 - acc: 0.8244 -
   val_loss: 0.4814 - val_acc: 0.7619
411 Epoch 190/10000
412 - 0s - loss: 0.4037 - acc: 0.8244 -
   val_loss: 0.4812 - val_acc: 0.7619
413 Epoch 191/10000
414 - 0s - loss: 0.4036 - acc: 0.8268 -
   val_loss: 0.4815 - val_acc: 0.7619
415 Epoch 192/10000
416 - 0s - loss: 0.4038 - acc: 0.8268 -
    val_loss: 0.4818 - val_acc: 0.7619
```

```
417 Epoch 193/10000
418 - 0s - loss: 0.4036 - acc: 0.8268 -
   val_loss: 0.4814 - val_acc: 0.7619
419 Epoch 194/10000
    - 0s - loss: 0.4035 - acc: 0.8256 -
420 I
   val_loss: 0.4815 - val_acc: 0.7619
421 Epoch 195/10000
422 - 0s - loss: 0.4037 - acc: 0.8256 -
   val_loss: 0.4816 - val_acc: 0.7619
423 Epoch 196/10000
424 - 0s - loss: 0.4035 - acc: 0.8268 -
   val_loss: 0.4814 - val_acc: 0.7619
425 Epoch 197/10000
    - 0s - loss: 0.4037 - acc: 0.8256 -
426 l
   val_loss: 0.4815 - val_acc: 0.7619
427 Epoch 198/10000
428 - 0s - loss: 0.4035 - acc: 0.8280 -
   val_loss: 0.4819 - val_acc: 0.7619
429 Epoch 199/10000
430 - 0s - loss: 0.4035 - acc: 0.8268 -
   val_loss: 0.4815 - val_acc: 0.7619
431 Epoch 200/10000
    - 0s - loss: 0.4035 - acc: 0.8244 -
432 I
    val_loss: 0.4814 - val_acc: 0.7619
```

```
433 Epoch 201/10000
434 - 0s - loss: 0.4037 - acc: 0.8268 -
   val_loss: 0.4815 - val_acc: 0.7619
435 Epoch 202/10000
    - 0s - loss: 0.4035 - acc: 0.8244 -
436 I
   val_loss: 0.4813 - val_acc: 0.7619
437 Epoch 203/10000
438 - 0s - loss: 0.4033 - acc: 0.8280 -
   val_loss: 0.4813 - val_acc: 0.7619
439 Epoch 204/10000
440 - 0s - loss: 0.4035 - acc: 0.8256 -
   val_loss: 0.4813 - val_acc: 0.7619
441 Epoch 205/10000
442 - 0s - loss: 0.4035 - acc: 0.8256 -
   val_loss: 0.4818 - val_acc: 0.7619
443 Epoch 206/10000
444 - 0s - loss: 0.4035 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
445 Epoch 207/10000
446 - 0s - loss: 0.4035 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
447 Epoch 208/10000
448 - 0s - loss: 0.4033 - acc: 0.8280 -
    val_loss: 0.4818 - val_acc: 0.7619
```

```
449 Epoch 209/10000
450 - 0s - loss: 0.4035 - acc: 0.8268 -
   val_loss: 0.4823 - val_acc: 0.7619
451 Epoch 210/10000
    - 0s - loss: 0.4033 - acc: 0.8256 -
452
   val_loss: 0.4822 - val_acc: 0.7667
453 Epoch 211/10000
454 - 0s - loss: 0.4035 - acc: 0.8256 -
   val_loss: 0.4823 - val_acc: 0.7619
455 Epoch 212/10000
456 - 0s - loss: 0.4032 - acc: 0.8256 -
   val_loss: 0.4827 - val_acc: 0.7619
457 Epoch 213/10000
458 - 0s - loss: 0.4033 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
459 Epoch 214/10000
460 - 0s - loss: 0.4033 - acc: 0.8256 -
   val_loss: 0.4815 - val_acc: 0.7619
461 Epoch 215/10000
462 - 0s - loss: 0.4031 - acc: 0.8268 -
   val_loss: 0.4817 - val_acc: 0.7619
463 Epoch 216/10000
464 - 0s - loss: 0.4034 - acc: 0.8256 -
    val_loss: 0.4814 - val_acc: 0.7619
```

```
465 Epoch 217/10000
466 - 0s - loss: 0.4032 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
467 Epoch 218/10000
468 - 0s - loss: 0.4033 - acc: 0.8256 -
   val_loss: 0.4814 - val_acc: 0.7619
469 Epoch 219/10000
470 - 0s - loss: 0.4032 - acc: 0.8256 -
   val_loss: 0.4817 - val_acc: 0.7619
471 Epoch 220/10000
472 - 0s - loss: 0.4032 - acc: 0.8280 -
   val_loss: 0.4822 - val_acc: 0.7619
473 Epoch 221/10000
474 - 0s - loss: 0.4032 - acc: 0.8256 -
   val_loss: 0.4824 - val_acc: 0.7619
475 Epoch 222/10000
476 - 0s - loss: 0.4030 - acc: 0.8268 -
   val_loss: 0.4822 - val_acc: 0.7619
477 Epoch 223/10000
478 - 0s - loss: 0.4032 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
479 Epoch 224/10000
480 - 0s - loss: 0.4031 - acc: 0.8268 -
    val_loss: 0.4818 - val_acc: 0.7619
```

```
481 Epoch 225/10000
    - 0s - loss: 0.4030 - acc: 0.8280 -
482 l
    val_loss: 0.4818 - val_acc: 0.7619
483 Epoch 226/10000
    - 0s - loss: 0.4030 - acc: 0.8268 -
484 I
    val_loss: 0.4810 - val_acc: 0.7619
485 Epoch 227/10000
    - 0s - loss: 0.4030 - acc: 0.8256 -
486 l
    val_loss: 0.4821 - val_acc: 0.7619
487 Epoch 228/10000
488 - 0s - loss: 0.4030 - acc: 0.8268 -
    val_loss: 0.4825 - val_acc: 0.7714
489 Epoch 229/10000
    - 0s - loss: 0.4031 - acc: 0.8268 -
490 I
    val_loss: 0.4821 - val_acc: 0.7619
491 Epoch 230/10000
492 - 0s - loss: 0.4029 - acc: 0.8256 -
    val loss: 0.4818 - val_acc: 0.7619
493 Epoch 231/10000
494 - 0s - loss: 0.4030 - acc: 0.8292 -
    val_loss: 0.4822 - val_acc: 0.7619
495 Epoch 232/10000
    - 0s - loss: 0.4031 - acc: 0.8280 -
496
    val_loss: 0.4826 - val_acc: 0.7714
```

```
497 Epoch 233/10000
498 - 0s - loss: 0.4029 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7714
499 Epoch 234/10000
500 - 0s - loss: 0.4028 - acc: 0.8256 -
   val_loss: 0.4822 - val_acc: 0.7667
501 Epoch 235/10000
502 - 0s - loss: 0.4029 - acc: 0.8268 -
   val_loss: 0.4828 - val_acc: 0.7714
503 Epoch 236/10000
504 - 0s - loss: 0.4029 - acc: 0.8268 -
   val_loss: 0.4824 - val_acc: 0.7619
505 Epoch 237/10000
    - 0s - loss: 0.4029 - acc: 0.8292 -
506 l
   val_loss: 0.4829 - val_acc: 0.7667
507 Epoch 238/10000
508 - 0s - loss: 0.4029 - acc: 0.8280 -
   val_loss: 0.4827 - val_acc: 0.7714
509 Epoch 239/10000
510 - 0s - loss: 0.4029 - acc: 0.8280 -
   val_loss: 0.4818 - val_acc: 0.7619
511 Epoch 240/10000
512 - 0s - loss: 0.4029 - acc: 0.8256 -
    val_loss: 0.4821 - val_acc: 0.7667
```

```
513
```

```
Epoch 00240: ReduceLROnPlateau reducing learning rate to 1.0000000475e-05.
```

- 515 Epoch 241/10000
- 516 0s loss: 0.4023 acc: 0.8268 val_loss: 0.4821 val_acc: 0.7619
- 517 Epoch 242/10000
- 518 0s loss: 0.4023 acc: 0.8268 val_loss: 0.4820 val_acc: 0.7619
- 519 Epoch 243/10000
- 520 0s loss: 0.4023 acc: 0.8268 val_loss: 0.4820 val_acc: 0.7619
- 521 Epoch 244/10000
- 522 0s loss: 0.4023 acc: 0.8268 val_loss: 0.4820 val_acc: 0.7667
- 523 Epoch 245/10000
- 524 0s loss: 0.4022 acc: 0.8268 val_loss: 0.4819 val_acc: 0.7619
- 525 Epoch 246/10000
- 526 0s loss: 0.4022 acc: 0.8268 val_loss: 0.4819 val_acc: 0.7619
- 527 Epoch 247/10000
- 528 0s loss: 0.4022 acc: 0.8268 val_loss: 0.4819 val_acc: 0.7619

```
529 Epoch 248/10000
530 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
531 Epoch 249/10000
532 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
533 Epoch 250/10000
534 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
535 Epoch 251/10000
536 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
537 Epoch 252/10000
538 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
539 Epoch 253/10000
540 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
541 Epoch 254/10000
542 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
543 Epoch 255/10000
544 - 0s - loss: 0.4022 - acc: 0.8268 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
545 Epoch 256/10000
    - 0s - loss: 0.4022 - acc: 0.8268 -
546 I
   val_loss: 0.4819 - val_acc: 0.7619
547 Epoch 257/10000
548 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
549 Epoch 258/10000
550 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
551 Epoch 259/10000
552 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
553 Epoch 260/10000
554 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
555 Epoch 261/10000
556 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
557 Epoch 262/10000
558 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
559 Epoch 263/10000
560 - 0s - loss: 0.4022 - acc: 0.8268 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
561 Epoch 264/10000
    - 0s - loss: 0.4022 - acc: 0.8256 -
562 I
   val_loss: 0.4819 - val_acc: 0.7619
563 Epoch 265/10000
    - 0s - loss: 0.4022 - acc: 0.8256 -
564
   val_loss: 0.4819 - val_acc: 0.7619
565 Epoch 266/10000
566 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
567 Epoch 267/10000
568 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
569 Epoch 268/10000
570 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
571 Epoch 269/10000
572 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4818 - val_acc: 0.7619
573 Epoch 270/10000
574 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4818 - val_acc: 0.7619
575 Epoch 271/10000
576 - 0s - loss: 0.4022 - acc: 0.8268 -
    val_loss: 0.4818 - val_acc: 0.7619
```

```
577 Epoch 272/10000
578 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4818 - val_acc: 0.7619
579 Epoch 273/10000
580 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
581 Epoch 274/10000
    - 0s - loss: 0.4022 - acc: 0.8256 -
582 I
   val_loss: 0.4819 - val_acc: 0.7619
583 Epoch 275/10000
584 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
585 Epoch 276/10000
    - 0s - loss: 0.4022 - acc: 0.8256 -
586 I
   val_loss: 0.4819 - val_acc: 0.7619
587 Epoch 277/10000
588 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
589 Epoch 278/10000
590 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
591 Epoch 279/10000
592 - 0s - loss: 0.4022 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
```

```
593 Epoch 280/10000
594 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
595 Epoch 281/10000
    - 0s - loss: 0.4022 - acc: 0.8268 -
596 I
   val_loss: 0.4821 - val_acc: 0.7619
597 Epoch 282/10000
598 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4821 - val_acc: 0.7619
599 Epoch 283/10000
600 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
601 Epoch 284/10000
602 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
603 Epoch 285/10000
604 - 0s - loss: 0.4022 - acc: 0.8268 -
   val loss: 0.4820 - val_acc: 0.7619
605 Epoch 286/10000
606 - 0s - loss: 0.4022 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
607 Epoch 287/10000
608 - 0s - loss: 0.4022 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
```

```
609 Epoch 288/10000
610 - 0s - loss: 0.4022 - acc: 0.8268 -
    val_loss: 0.4820 - val_acc: 0.7619
611 Epoch 289/10000
612 - 0s - loss: 0.4022 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
613 Epoch 290/10000
614 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
615 Epoch 291/10000
616 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
617 Epoch 292/10000
618 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
619 Epoch 293/10000
620 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
621 Epoch 294/10000
622 - 0s - loss: 0.4022 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
623 Epoch 295/10000
624 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
625 Epoch 296/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
626 I
   val_loss: 0.4820 - val_acc: 0.7619
627 Epoch 297/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
628
   val_loss: 0.4820 - val_acc: 0.7619
629 Epoch 298/10000
630 - 0s - loss: 0.4022 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
631 Epoch 299/10000
632 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
633 Epoch 300/10000
634 - 0s - loss: 0.4021 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
635 Epoch 301/10000
636 - 0s - loss: 0.4021 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
637 Epoch 302/10000
638 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
639 Epoch 303/10000
640 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
641 Epoch 304/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
642
   val_loss: 0.4819 - val_acc: 0.7619
643 Epoch 305/10000
644 - 0s - loss: 0.4021 - acc: 0.8256 -
   val_loss: 0.4819 - val_acc: 0.7619
645 Epoch 306/10000
646 - 0s - loss: 0.4021 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
647 Epoch 307/10000
648 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
649 Epoch 308/10000
650 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
651 Epoch 309/10000
652 - 0s - loss: 0.4021 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
653 Epoch 310/10000
654 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
655 Epoch 311/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
656
    val_loss: 0.4821 - val_acc: 0.7619
```

```
657 Epoch 312/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
658 I
   val_loss: 0.4821 - val_acc: 0.7619
659 Epoch 313/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
660
   val_loss: 0.4820 - val_acc: 0.7619
661 Epoch 314/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
662
   val_loss: 0.4820 - val_acc: 0.7619
663 Epoch 315/10000
664 - 0s - loss: 0.4021 - acc: 0.8256 -
   val_loss: 0.4820 - val_acc: 0.7619
665 Epoch 316/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
666
   val_loss: 0.4820 - val_acc: 0.7619
667 Epoch 317/10000
668 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4820 - val_acc: 0.7619
669 Epoch 318/10000
670 - 0s - loss: 0.4021 - acc: 0.8268 -
   val_loss: 0.4819 - val_acc: 0.7619
671 Epoch 319/10000
    - 0s - loss: 0.4021 - acc: 0.8268 -
672 I
    val_loss: 0.4819 - val_acc: 0.7619
```

```
673 Epoch 320/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
674 I
    val_loss: 0.4819 - val_acc: 0.7619
675 Epoch 321/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
676
    val_loss: 0.4819 - val_acc: 0.7619
677 Epoch 322/10000
678 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
679 Epoch 323/10000
680 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
681 Epoch 324/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
682
    val_loss: 0.4820 - val_acc: 0.7619
683 Epoch 325/10000
684 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
685 Epoch 326/10000
686 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
687 Epoch 327/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
688 I
    val_loss: 0.4820 - val_acc: 0.7619
```

```
689 Epoch 328/10000
690 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
691 Epoch 329/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
692
    val_loss: 0.4819 - val_acc: 0.7619
693 Epoch 330/10000
694 - 0s - loss: 0.4021 - acc: 0.8268 -
    val_loss: 0.4818 - val_acc: 0.7619
695 Epoch 331/10000
696 - 0s - loss: 0.4021 - acc: 0.8268 -
    val_loss: 0.4818 - val_acc: 0.7619
697 Epoch 332/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
698
    val_loss: 0.4819 - val_acc: 0.7619
699 Epoch 333/10000
700 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
701 Epoch 334/10000
702 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4818 - val_acc: 0.7619
703 Epoch 335/10000
704 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
705 Epoch 336/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
706
    val_loss: 0.4819 - val_acc: 0.7619
707 Epoch 337/10000
708 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
709 Epoch 338/10000
710 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
711 Epoch 339/10000
712 - 0s - loss: 0.4021 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
713 Epoch 340/10000
    - 0s - loss: 0.4021 - acc: 0.8256 -
714
    val_loss: 0.4819 - val_acc: 0.7619
715
716 Epoch 00340: ReduceLROnPlateau reducing
     learning rate to 1.0000006569e-06.
717 Epoch 341/10000
718 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
719 Epoch 342/10000
720 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
721 Epoch 343/10000
722 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
723 Epoch 344/10000
724 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
725 Epoch 345/10000
726 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
727 Epoch 346/10000
728 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
729 Epoch 347/10000
730 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
731 Epoch 348/10000
732 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
733 Epoch 349/10000
734 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
735 Epoch 350/10000
736 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
```

```
737 Epoch 351/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
738 I
    val_loss: 0.4820 - val_acc: 0.7619
739 Epoch 352/10000
740 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
741 Epoch 353/10000
742 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
743 Epoch 354/10000
744 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
745 Epoch 355/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
746 I
    val_loss: 0.4819 - val_acc: 0.7619
747 Epoch 356/10000
748 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
749 Epoch 357/10000
750 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
751 Epoch 358/10000
752 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
753 Epoch 359/10000
754 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
755 Epoch 360/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
756 I
    val_loss: 0.4819 - val_acc: 0.7619
757 Epoch 361/10000
758 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
759 Epoch 362/10000
760 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
761 Epoch 363/10000
762 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
763 Epoch 364/10000
764 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
765 Epoch 365/10000
766 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
767 Epoch 366/10000
768 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
769 Epoch 367/10000
770 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
771 Epoch 368/10000
772 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
773 Epoch 369/10000
774 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
775 Epoch 370/10000
776 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
777 Epoch 371/10000
778 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
779 Epoch 372/10000
780 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
781 Epoch 373/10000
782 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
783 Epoch 374/10000
784 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
785 Epoch 375/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
786 I
    val_loss: 0.4819 - val_acc: 0.7619
787 Epoch 376/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
788 I
    val_loss: 0.4819 - val_acc: 0.7619
789 Epoch 377/10000
790 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
791 Epoch 378/10000
792 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
793 Epoch 379/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
794 I
    val_loss: 0.4819 - val_acc: 0.7619
795 Epoch 380/10000
796 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
797 Epoch 381/10000
798 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
799 Epoch 382/10000
800 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
801 Epoch 383/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
802 l
    val_loss: 0.4819 - val_acc: 0.7619
803 Epoch 384/10000
804 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
805 Epoch 385/10000
806 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
807 Epoch 386/10000
808 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
809 Epoch 387/10000
810 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
811 Epoch 388/10000
812 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
813 Epoch 389/10000
814 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
815 Epoch 390/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
816 I
    val_loss: 0.4819 - val_acc: 0.7619
```

```
817 Epoch 391/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
818 I
    val_loss: 0.4819 - val_acc: 0.7619
819 Epoch 392/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
820 I
    val_loss: 0.4819 - val_acc: 0.7619
821 Epoch 393/10000
822 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
823 Epoch 394/10000
824 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
825 Epoch 395/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
826 I
    val_loss: 0.4819 - val_acc: 0.7619
827 Epoch 396/10000
828 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
829 Epoch 397/10000
830 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
831 Epoch 398/10000
832 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
833 Epoch 399/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
834 I
    val_loss: 0.4819 - val_acc: 0.7619
835 Epoch 400/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
836 I
    val_loss: 0.4819 - val_acc: 0.7619
837 Epoch 401/10000
838 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
839 Epoch 402/10000
840 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
841 Epoch 403/10000
842 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
843 Epoch 404/10000
844 - 0s - loss: 0.4020 - acc: 0.8256 -
    val loss: 0.4820 - val_acc: 0.7619
845 Epoch 405/10000
846 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
847 Epoch 406/10000
848 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
849 Epoch 407/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
850 l
    val_loss: 0.4819 - val_acc: 0.7619
851 Epoch 408/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
852 l
    val_loss: 0.4819 - val_acc: 0.7619
853 Epoch 409/10000
854 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
855 Epoch 410/10000
856 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
857 Epoch 411/10000
858 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
859 Epoch 412/10000
860 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
861 Epoch 413/10000
862 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
863 Epoch 414/10000
864 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
865 Epoch 415/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
866 I
    val_loss: 0.4819 - val_acc: 0.7619
867 Epoch 416/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
868
    val_loss: 0.4819 - val_acc: 0.7619
869 Epoch 417/10000
870 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
871 Epoch 418/10000
872 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
873 Epoch 419/10000
874 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
875 Epoch 420/10000
876 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
877 Epoch 421/10000
878 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
879 Epoch 422/10000
880 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
```

```
881 Epoch 423/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
882
    val_loss: 0.4819 - val_acc: 0.7619
883 Epoch 424/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
884
    val_loss: 0.4819 - val_acc: 0.7619
885 Epoch 425/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
886 I
    val_loss: 0.4819 - val_acc: 0.7619
887 Epoch 426/10000
888 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
889 Epoch 427/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
890 I
    val_loss: 0.4819 - val_acc: 0.7619
891 Epoch 428/10000
892 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
893 Epoch 429/10000
894 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
895 Epoch 430/10000
    - 0s - loss: 0.4020 - acc: 0.82<u>5</u>6 -
896
    val_loss: 0.4820 - val_acc: 0.7619
```

```
897 Epoch 431/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
898 |
    val_loss: 0.4820 - val_acc: 0.7619
899 Epoch 432/10000
900 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
901 Epoch 433/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
902
    val_loss: 0.4820 - val_acc: 0.7619
903 Epoch 434/10000
904 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
905 Epoch 435/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
906 l
    val_loss: 0.4820 - val_acc: 0.7619
907 Epoch 436/10000
908 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
909 Epoch 437/10000
910 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
911 Epoch 438/10000
    - 0s - Loss: 0.4020 - acc: 0.8256 -
912 I
    val_loss: 0.4820 - val_acc: 0.7619
```

```
913 Epoch 439/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
914 |
    val_loss: 0.4820 - val_acc: 0.7619
915 Epoch 440/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
916
    val_loss: 0.4820 - val_acc: 0.7619
917
918 Epoch 00440: ReduceLROnPlateau reducing
     learning rate to 1e-06.
919 Epoch 441/10000
920 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
921 Epoch 442/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
922
    val_loss: 0.4820 - val_acc: 0.7619
923 Epoch 443/10000
924 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
925 Epoch 444/10000
926 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
927 Epoch 445/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
928
    val_loss: 0.4820 - val_acc: 0.7619
```

```
929 Epoch 446/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
930
    val_loss: 0.4820 - val_acc: 0.7619
931 Epoch 447/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
932
    val_loss: 0.4820 - val_acc: 0.7619
933 Epoch 448/10000
934 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
935 Epoch 449/10000
936 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
937 Epoch 450/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
938 I
    val_loss: 0.4820 - val_acc: 0.7619
939 Epoch 451/10000
940 - 0s - loss: 0.4020 - acc: 0.8256 -
    val loss: 0.4820 - val_acc: 0.7619
941 Epoch 452/10000
942 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
943 Epoch 453/10000
944 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
```

```
945 Epoch 454/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
946
    val_loss: 0.4820 - val_acc: 0.7619
947 Epoch 455/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
948 I
    val_loss: 0.4820 - val_acc: 0.7619
949 Epoch 456/10000
950 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
951 Epoch 457/10000
952 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
953 Epoch 458/10000
954 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
955 Epoch 459/10000
956 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
957 Epoch 460/10000
958 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
959 Epoch 461/10000
960 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
```

```
961 Epoch 462/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
962
    val_loss: 0.4820 - val_acc: 0.7619
963 Epoch 463/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
964
    val_loss: 0.4820 - val_acc: 0.7619
965 Epoch 464/10000
966 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
967 Epoch 465/10000
968 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
969 Epoch 466/10000
970 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
971 Epoch 467/10000
972 - 0s - loss: 0.4020 - acc: 0.8256 -
    val loss: 0.4820 - val_acc: 0.7619
973 Epoch 468/10000
974 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
975 Epoch 469/10000
    - 0s - Loss: 0.4020 - acc: 0.8256 -
976 I
    val_loss: 0.4820 - val_acc: 0.7619
```

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977 Epoch 470/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
978
    val_loss: 0.4820 - val_acc: 0.7619
979 Epoch 471/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
980
    val_loss: 0.4820 - val_acc: 0.7619
981 Epoch 472/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
982
    val_loss: 0.4819 - val_acc: 0.7619
983 Epoch 473/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
984
    val_loss: 0.4820 - val_acc: 0.7619
985 Epoch 474/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
986
    val_loss: 0.4820 - val_acc: 0.7619
987 Epoch 475/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
988
    val_loss: 0.4820 - val_acc: 0.7619
989 Epoch 476/10000
   - 0s - loss: 0.4020 - acc: 0.8256 -
990
    val_loss: 0.4820 - val_acc: 0.7619
991 Epoch 477/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
992
    val_loss: 0.4820 - val_acc: 0.7619
```

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993 Epoch 478/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
994
     val_loss: 0.4820 - val_acc: 0.7619
995 Epoch 479/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
996
     val_loss: 0.4820 - val_acc: 0.7619
997 Epoch 480/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
998
     val_loss: 0.4820 - val_acc: 0.7619
999 Epoch 481/10000
1000 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1001 Epoch 482/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1002
     val_loss: 0.4820 - val_acc: 0.7619
1003 Epoch 483/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1004
    val_loss: 0.4820 - val_acc: 0.7619
1005 Epoch 484/10000
1006 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1007 Epoch 485/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1008
     val_loss: 0.4820 - val_acc: 0.7619
```

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1009 Epoch 486/10000
1010 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1011 Epoch 487/10000
1012 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1013 Epoch 488/10000
1014 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1015 Epoch 489/10000
1016 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1017 Epoch 490/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1018
     val_loss: 0.4820 - val_acc: 0.7619
1019 Epoch 491/10000
1020 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
1021 Epoch 492/10000
1022 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1023 Epoch 493/10000
1024 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
```

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1025 Epoch 494/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1026
     val_loss: 0.4820 - val_acc: 0.7619
1027 Epoch 495/10000
1028 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1029 Epoch 496/10000
1030 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1031 Epoch 497/10000
1032 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1033 Epoch 498/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1034
     val_loss: 0.4820 - val_acc: 0.7619
1035 Epoch 499/10000
1036 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1037 Epoch 500/10000
1038 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1039 Epoch 501/10000
1040 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
```

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1041 Epoch 502/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1042
     val_loss: 0.4820 - val_acc: 0.7619
1043 Epoch 503/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1044
     val_loss: 0.4820 - val_acc: 0.7619
1045 Epoch 504/10000
1046 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1047 Epoch 505/10000
1048 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1049 Epoch 506/10000
1050 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1051 Epoch 507/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1052
    val_loss: 0.4820 - val_acc: 0.7619
1053 Epoch 508/10000
1054 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1055 Epoch 509/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1056
     val_loss: 0.4820 - val_acc: 0.7619
```

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1057 Epoch 510/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1058
     val_loss: 0.4820 - val_acc: 0.7619
1059 Epoch 511/10000
1060 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1061 Epoch 512/10000
1062 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1063 Epoch 513/10000
1064 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1065 Epoch 514/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1066
     val_loss: 0.4820 - val_acc: 0.7619
1067 Epoch 515/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1068
     val_loss: 0.4820 - val_acc: 0.7619
1069 Epoch 516/10000
1070 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1071 Epoch 517/10000
1072 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
```

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1073 Epoch 518/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1074 |
     val_loss: 0.4820 - val_acc: 0.7619
1075 Epoch 519/10000
1076 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1077 Epoch 520/10000
1078 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1079 Epoch 521/10000
1080 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1081 Epoch 522/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1082
     val_loss: 0.4820 - val_acc: 0.7619
1083 Epoch 523/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1084
    val_loss: 0.4820 - val_acc: 0.7619
1085 Epoch 524/10000
1086 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1087 Epoch 525/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1088
     val_loss: 0.4820 - val_acc: 0.7619
```

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1089 Epoch 526/10000
1090 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1091 Epoch 527/10000
1092 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1093 Epoch 528/10000
1094 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1095 Epoch 529/10000
1096 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1097 Epoch 530/10000
     - 0s - loss: 0.4020 - acc: 0.8268 -
1098
     val_loss: 0.4820 - val_acc: 0.7619
1099 Epoch 531/10000
1100 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
1101 Epoch 532/10000
1102 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1103 Epoch 533/10000
1104 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
```

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1105 Epoch 534/10000
1106 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1107 Epoch 535/10000
1108 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1109 Epoch 536/10000
1110 - 0s - loss: 0.4020 - acc: 0.8268 -
     val_loss: 0.4820 - val_acc: 0.7619
1111 Epoch 537/10000
1112 - 0s - loss: 0.4020 - acc: 0.8268 -
     val_loss: 0.4820 - val_acc: 0.7619
1113 Epoch 538/10000
1114
     - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1115 Epoch 539/10000
1116 - 0s - loss: 0.4020 - acc: 0.8268 -
     val_loss: 0.4820 - val_acc: 0.7619
1117 Epoch 540/10000
1118 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1119 Epoch 541/10000
1120 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
```

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1121 Epoch 542/10000
1122
     - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1123 Epoch 543/10000
1124 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1125 Epoch 544/10000
1126 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1127 Epoch 545/10000
1128 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1129 Epoch 546/10000
1130 - 0s - loss: 0.4020 - acc: 0.825<u>6</u> -
     val_loss: 0.4820 - val_acc: 0.7619
1131 Epoch 547/10000
1132 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
1133 Epoch 548/10000
1134 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1135 Epoch 549/10000
1136 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
```

```
1137 Epoch 550/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1138
     val_loss: 0.4820 - val_acc: 0.7619
1139 Epoch 551/10000
1140 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1141 Epoch 552/10000
1142 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1143 Epoch 553/10000
1144 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1145 Epoch 554/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1146
     val_loss: 0.4820 - val_acc: 0.7619
1147 Epoch 555/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1148 I
    val_loss: 0.4820 - val_acc: 0.7619
1149 Epoch 556/10000
1150 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1151 Epoch 557/10000
1152 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

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1153 Epoch 558/10000
1154
     - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1155 Epoch 559/10000
1156 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1157 Epoch 560/10000
1158 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1159 Epoch 561/10000
1160 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1161 Epoch 562/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1162
     val_loss: 0.4820 - val_acc: 0.7619
1163 Epoch 563/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1164 l
    val_loss: 0.4819 - val_acc: 0.7619
1165 Epoch 564/10000
1166 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1167 Epoch 565/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
1168
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1169 Epoch 566/10000
1170 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1171 Epoch 567/10000
1172 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1173 Epoch 568/10000
1174 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1175 Epoch 569/10000
1176 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1177 Epoch 570/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1178 l
     val_loss: 0.4819 - val_acc: 0.7619
1179 Epoch 571/10000
1180 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1181 Epoch 572/10000
1182 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1183 Epoch 573/10000
1184 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1185 Epoch 574/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1186
     val_loss: 0.4819 - val_acc: 0.7619
1187 Epoch 575/10000
1188 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1189 Epoch 576/10000
1190 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1191 Epoch 577/10000
1192 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1193 Epoch 578/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1194
     val_loss: 0.4819 - val_acc: 0.7619
1195 Epoch 579/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1196 I
    val_loss: 0.4819 - val_acc: 0.7619
1197 Epoch 580/10000
    - 0s - loss: 0.4020 - acc: 0.8256 -
1198
     val_loss: 0.4819 - val_acc: 0.7619
1199 Epoch 581/10000
1200 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1201 Epoch 582/10000
1202 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1203 Epoch 583/10000
1204 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1205 Epoch 584/10000
1206 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1207 Epoch 585/10000
1208 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1209 Epoch 586/10000
1210 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1211 Epoch 587/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1212 l
    val_loss: 0.4819 - val_acc: 0.7619
1213 Epoch 588/10000
1214 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1215 Epoch 589/10000
1216 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1217 Epoch 590/10000
1218
     - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1219 Epoch 591/10000
1220 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1221 Epoch 592/10000
1222 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1223 Epoch 593/10000
1224 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1225 Epoch 594/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1226
     val_loss: 0.4819 - val_acc: 0.7619
1227 Epoch 595/10000
1228 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4820 - val_acc: 0.7619
1229 Epoch 596/10000
1230 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4820 - val_acc: 0.7619
1231 Epoch 597/10000
1232 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1233 Epoch 598/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1234
     val_loss: 0.4819 - val_acc: 0.7619
1235 Epoch 599/10000
1236 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1237 Epoch 600/10000
1238 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1239 Epoch 601/10000
1240 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1241 Epoch 602/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1242
     val_loss: 0.4819 - val_acc: 0.7619
1243 Epoch 603/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1244 I
    val_loss: 0.4819 - val_acc: 0.7619
1245 Epoch 604/10000
1246 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1247 Epoch 605/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1248
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1249 Epoch 606/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1250 l
     val_loss: 0.4819 - val_acc: 0.7619
1251 Epoch 607/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1252
     val_loss: 0.4819 - val_acc: 0.7619
1253 Epoch 608/10000
1254 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1255 Epoch 609/10000
1256 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1257 Epoch 610/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1258
     val_loss: 0.4819 - val_acc: 0.7619
1259 Epoch 611/10000
1260 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1261 Epoch 612/10000
1262 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1263 Epoch 613/10000
1264 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1265 Epoch 614/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1266
     val_loss: 0.4819 - val_acc: 0.7619
1267 Epoch 615/10000
1268 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1269 Epoch 616/10000
1270 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1271 Epoch 617/10000
1272 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1273 Epoch 618/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1274
     val_loss: 0.4819 - val_acc: 0.7619
1275 Epoch 619/10000
1276 - 0s - loss: 0.4020 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1277 Epoch 620/10000
1278 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1279 Epoch 621/10000
1280 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1281 Epoch 622/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1282
     val_loss: 0.4819 - val_acc: 0.7619
1283 Epoch 623/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1284 l
     val_loss: 0.4819 - val_acc: 0.7619
1285 Epoch 624/10000
1286 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1287 Epoch 625/10000
1288 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1289 Epoch 626/10000
1290 - 0s - loss: 0.4020 - acc: 0.825<u>6</u> -
     val_loss: 0.4819 - val_acc: 0.7619
1291 Epoch 627/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1292 l
     val_loss: 0.4819 - val_acc: 0.7619
1293 Epoch 628/10000
1294 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1295 Epoch 629/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1296
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1297 Epoch 630/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1298
     val_loss: 0.4819 - val_acc: 0.7619
1299 Epoch 631/10000
1300 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1301 Epoch 632/10000
1302 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1303 Epoch 633/10000
1304 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1305 Epoch 634/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1306
     val_loss: 0.4819 - val_acc: 0.7619
1307 Epoch 635/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1308 l
    val_loss: 0.4819 - val_acc: 0.7619
1309 Epoch 636/10000
1310 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1311 Epoch 637/10000
1312 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1313 Epoch 638/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1314 |
     val_loss: 0.4819 - val_acc: 0.7619
1315 Epoch 639/10000
1316 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1317 Epoch 640/10000
1318 - 0s - Loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1319 Epoch 641/10000
1320 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1321 Epoch 642/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1322
     val_loss: 0.4819 - val_acc: 0.7619
1323 Epoch 643/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1324
    val_loss: 0.4819 - val_acc: 0.7619
1325 Epoch 644/10000
1326 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1327 Epoch 645/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1328 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1329 Epoch 646/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1330
     val_loss: 0.4819 - val_acc: 0.7619
1331 Epoch 647/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1332 l
     val_loss: 0.4819 - val_acc: 0.7619
1333 Epoch 648/10000
1334 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1335 Epoch 649/10000
1336 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1337 Epoch 650/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1338
     val_loss: 0.4819 - val_acc: 0.7619
1339 Epoch 651/10000
1340 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1341 Epoch 652/10000
1342 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1343 Epoch 653/10000
1344 - 0s - loss: 0.4020 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1345 Epoch 654/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1346
     val_loss: 0.4819 - val_acc: 0.7619
1347 Epoch 655/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1348 l
     val_loss: 0.4819 - val_acc: 0.7619
1349 Epoch 656/10000
1350 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1351 Epoch 657/10000
1352 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1353 Epoch 658/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1354
     val_loss: 0.4819 - val_acc: 0.7619
1355 Epoch 659/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1356
    val_loss: 0.4819 - val_acc: 0.7619
1357 Epoch 660/10000
1358 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1359 Epoch 661/10000
     - 0s - loss: 0.4020 - acc: 0.8256 -
1360 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1361 Epoch 662/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1362
     val_loss: 0.4819 - val_acc: 0.7619
1363 Epoch 663/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1364
     val_loss: 0.4819 - val_acc: 0.7619
1365 Epoch 664/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1366
     val_loss: 0.4819 - val_acc: 0.7619
1367 Epoch 665/10000
1368 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1369 Epoch 666/10000
1370 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1371 Epoch 667/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1372 l
    val_loss: 0.4819 - val_acc: 0.7619
1373 Epoch 668/10000
1374 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1375 Epoch 669/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
1376
     val_loss: 0.4819 - val_acc: 0.7619
```

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1377 Epoch 670/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1378
     val_loss: 0.4819 - val_acc: 0.7619
1379 Epoch 671/10000
1380 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1381 Epoch 672/10000
1382 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1383 Epoch 673/10000
1384 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1385 Epoch 674/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1386
     val_loss: 0.4819 - val_acc: 0.7619
1387 Epoch 675/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1388
    val_loss: 0.4819 - val_acc: 0.7619
1389 Epoch 676/10000
1390 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1391 Epoch 677/10000
1392 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1393 Epoch 678/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1394
     val_loss: 0.4819 - val_acc: 0.7619
1395 Epoch 679/10000
1396 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1397 Epoch 680/10000
1398 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1399 Epoch 681/10000
1400 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1401 Epoch 682/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1402
     val_loss: 0.4819 - val_acc: 0.7619
1403 Epoch 683/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1404
    val_loss: 0.4819 - val_acc: 0.7619
1405 Epoch 684/10000
1406 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1407 Epoch 685/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1408
     val_loss: 0.4819 - val_acc: 0.7619
```

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1409 Epoch 686/10000
1410 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1411 Epoch 687/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1412
     val_loss: 0.4819 - val_acc: 0.7619
1413 Epoch 688/10000
1414 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1415 Epoch 689/10000
1416 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1417 Epoch 690/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1418
     val_loss: 0.4819 - val_acc: 0.7619
1419 Epoch 691/10000
1420 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1421 Epoch 692/10000
1422 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1423 Epoch 693/10000
1424 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1425 Epoch 694/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1426
     val_loss: 0.4819 - val_acc: 0.7619
1427 Epoch 695/10000
1428 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1429 Epoch 696/10000
1430 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1431 Epoch 697/10000
1432 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1433 Epoch 698/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1434
    val_loss: 0.4819 - val_acc: 0.7619
1435 Epoch 699/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1436 l
    val_loss: 0.4819 - val_acc: 0.7619
1437 Epoch 700/10000
1438 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1439 Epoch 701/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1440 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1441 Epoch 702/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1442 |
     val_loss: 0.4819 - val_acc: 0.7619
1443 Epoch 703/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1444
     val_loss: 0.4819 - val_acc: 0.7619
1445 Epoch 704/10000
1446 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1447 Epoch 705/10000
1448 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1449 Epoch 706/10000
1450 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1451 Epoch 707/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1452
    val_loss: 0.4819 - val_acc: 0.7619
1453 Epoch 708/10000
1454 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1455 Epoch 709/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1456
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1457 Epoch 710/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1458
     val_loss: 0.4819 - val_acc: 0.7619
1459 Epoch 711/10000
1460 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1461 Epoch 712/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1462
     val_loss: 0.4819 - val_acc: 0.7619
1463 Epoch 713/10000
1464 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1465 Epoch 714/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1466
     val_loss: 0.4819 - val_acc: 0.7619
1467 Epoch 715/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1468
    val_loss: 0.4819 - val_acc: 0.7619
1469 Epoch 716/10000
1470 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1471 Epoch 717/10000
1472 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1473 Epoch 718/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1474 |
     val_loss: 0.4819 - val_acc: 0.7619
1475 Epoch 719/10000
1476 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1477 Epoch 720/10000
1478 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1479 Epoch 721/10000
1480 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1481 Epoch 722/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1482
     val_loss: 0.4819 - val_acc: 0.7619
1483 Epoch 723/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1484
    val_loss: 0.4819 - val_acc: 0.7619
1485 Epoch 724/10000
1486 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1487 Epoch 725/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1488
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1489 Epoch 726/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1490 I
     val_loss: 0.4819 - val_acc: 0.7619
1491 Epoch 727/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1492
     val_loss: 0.4819 - val_acc: 0.7619
1493 Epoch 728/10000
1494 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1495 Epoch 729/10000
1496 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1497 Epoch 730/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1498
     val_loss: 0.4819 - val_acc: 0.7619
1499 Epoch 731/10000
1500 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1501 Epoch 732/10000
1502 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1503 Epoch 733/10000
1504 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1505 Epoch 734/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1506
     val_loss: 0.4819 - val_acc: 0.7619
1507 Epoch 735/10000
1508 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1509 Epoch 736/10000
1510 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1511 Epoch 737/10000
1512 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1513 Epoch 738/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1514
    val_loss: 0.4819 - val_acc: 0.7619
1515 Epoch 739/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1516 l
    val_loss: 0.4819 - val_acc: 0.7619
1517 Epoch 740/10000
1518 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1519 Epoch 741/10000
1520 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1521 Epoch 742/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1522
     val_loss: 0.4819 - val_acc: 0.7619
1523 Epoch 743/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1524
     val_loss: 0.4819 - val_acc: 0.7619
1525 Epoch 744/10000
1526 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1527 Epoch 745/10000
1528 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1529 Epoch 746/10000
1530 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1531 Epoch 747/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1532 l
    val_loss: 0.4819 - val_acc: 0.7619
1533 Epoch 748/10000
1534 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1535 Epoch 749/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1536 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1537 Epoch 750/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1538
     val_loss: 0.4819 - val_acc: 0.7619
1539 Epoch 751/10000
1540 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1541 Epoch 752/10000
1542 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1543 Epoch 753/10000
1544 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1545 Epoch 754/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1546
     val_loss: 0.4819 - val_acc: 0.7619
1547 Epoch 755/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1548 l
    val_loss: 0.4819 - val_acc: 0.7619
1549 Epoch 756/10000
1550 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1551 Epoch 757/10000
1552 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1553 Epoch 758/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1554
     val_loss: 0.4819 - val_acc: 0.7619
1555 Epoch 759/10000
1556 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4818 - val_acc: 0.7619
1557 Epoch 760/10000
1558 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1559 Epoch 761/10000
1560 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4818 - val_acc: 0.7619
1561 Epoch 762/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1562
     val_loss: 0.4819 - val_acc: 0.7619
1563 Epoch 763/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1564
    val_loss: 0.4819 - val_acc: 0.7619
1565 Epoch 764/10000
1566 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1567 Epoch 765/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1568
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1569 Epoch 766/10000
1570 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1571 Epoch 767/10000
1572 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1573 Epoch 768/10000
1574 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1575 Epoch 769/10000
1576 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1577 Epoch 770/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1578
     val_loss: 0.4819 - val_acc: 0.7619
1579 Epoch 771/10000
1580 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1581 Epoch 772/10000
1582 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1583 Epoch 773/10000
1584 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1585 Epoch 774/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1586
     val_loss: 0.4819 - val_acc: 0.7619
1587 Epoch 775/10000
1588 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1589 Epoch 776/10000
1590 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1591 Epoch 777/10000
1592 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1593 Epoch 778/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1594
     val_loss: 0.4819 - val_acc: 0.7619
1595 Epoch 779/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1596 |
    val_loss: 0.4819 - val_acc: 0.7619
1597 Epoch 780/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
1598
     val_loss: 0.4819 - val_acc: 0.7619
1599 Epoch 781/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1600
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1601 Epoch 782/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1602
     val_loss: 0.4819 - val_acc: 0.7619
1603 Epoch 783/10000
1604 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1605 Epoch 784/10000
1606 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1607 Epoch 785/10000
1608 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1609 Epoch 786/10000
1610 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1611 Epoch 787/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1612 l
    val_loss: 0.4819 - val_acc: 0.7619
1613 Epoch 788/10000
1614 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1615 Epoch 789/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1616
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1617 Epoch 790/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1618
     val_loss: 0.4819 - val_acc: 0.7619
1619 Epoch 791/10000
1620 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1621 Epoch 792/10000
1622 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1623 Epoch 793/10000
1624 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1625 Epoch 794/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1626
     val_loss: 0.4819 - val_acc: 0.7619
1627 Epoch 795/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1628 l
    val_loss: 0.4819 - val_acc: 0.7619
1629 Epoch 796/10000
1630 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1631 Epoch 797/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1632 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1633 Epoch 798/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1634
     val_loss: 0.4819 - val_acc: 0.7619
1635 Epoch 799/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1636
     val_loss: 0.4819 - val_acc: 0.7619
1637 Epoch 800/10000
1638 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1639 Epoch 801/10000
1640 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1641 Epoch 802/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1642
     val_loss: 0.4819 - val_acc: 0.7619
1643 Epoch 803/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1644
    val_loss: 0.4819 - val_acc: 0.7619
1645 Epoch 804/10000
1646 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1647 Epoch 805/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1648
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1649 Epoch 806/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1650 l
     val_loss: 0.4819 - val_acc: 0.7619
1651 Epoch 807/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1652
     val_loss: 0.4819 - val_acc: 0.7619
1653 Epoch 808/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1654 l
     val_loss: 0.4819 - val_acc: 0.7619
1655 Epoch 809/10000
1656 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1657 Epoch 810/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1658
     val_loss: 0.4819 - val_acc: 0.7619
1659 Epoch 811/10000
1660 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4818 - val_acc: 0.7619
1661 Epoch 812/10000
1662 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1663 Epoch 813/10000
     - 0s - loss: 0.4019 - acc: 0.82<u>56</u> -
1664 l
     val_loss: 0.4818 - val_acc: 0.7619
```

```
1665 Epoch 814/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1666
     val_loss: 0.4819 - val_acc: 0.7619
1667 Epoch 815/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1668
     val_loss: 0.4819 - val_acc: 0.7619
1669 Epoch 816/10000
1670 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1671 Epoch 817/10000
1672 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1673 Epoch 818/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1674
     val_loss: 0.4819 - val_acc: 0.7619
1675 Epoch 819/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1676 I
    val_loss: 0.4819 - val_acc: 0.7619
1677 Epoch 820/10000
1678 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1679 Epoch 821/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1680 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1681 Epoch 822/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1682
     val_loss: 0.4819 - val_acc: 0.7619
1683 Epoch 823/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1684
     val_loss: 0.4819 - val_acc: 0.7619
1685 Epoch 824/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1686 l
     val_loss: 0.4819 - val_acc: 0.7619
1687 Epoch 825/10000
1688 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1689 Epoch 826/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1690 l
     val_loss: 0.4819 - val_acc: 0.7619
1691 Epoch 827/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1692 |
     val_loss: 0.4819 - val_acc: 0.7619
1693 Epoch 828/10000
1694 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1695 Epoch 829/10000
     - 0s - loss: 0.4019 - acc: 0.82<u>56</u> -
1696
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1697 Epoch 830/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1698
     val_loss: 0.4819 - val_acc: 0.7619
1699 Epoch 831/10000
1700 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1701 Epoch 832/10000
1702 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1703 Epoch 833/10000
1704 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1705 Epoch 834/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1706
     val_loss: 0.4819 - val_acc: 0.7619
1707 Epoch 835/10000
1708 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1709 Epoch 836/10000
1710 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1711 Epoch 837/10000
1712 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1713 Epoch 838/10000
1714 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1715 Epoch 839/10000
1716 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1717 Epoch 840/10000
1718 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1719 Epoch 841/10000
1720 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1721 Epoch 842/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1722 l
     val_loss: 0.4819 - val_acc: 0.7619
1723 Epoch 843/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1724
    val_loss: 0.4819 - val_acc: 0.7619
1725 Epoch 844/10000
1726 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1727 Epoch 845/10000
1728 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1729 Epoch 846/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1730 l
     val_loss: 0.4819 - val_acc: 0.7619
1731 Epoch 847/10000
1732 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1733 Epoch 848/10000
1734 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1735 Epoch 849/10000
1736 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1737 Epoch 850/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1738
     val_loss: 0.4819 - val_acc: 0.7619
1739 Epoch 851/10000
1740 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1741 Epoch 852/10000
1742 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1743 Epoch 853/10000
1744 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1745 Epoch 854/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1746 l
     val_loss: 0.4819 - val_acc: 0.7619
1747 Epoch 855/10000
1748 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1749 Epoch 856/10000
1750 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1751 Epoch 857/10000
1752 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1753 Epoch 858/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1754
     val_loss: 0.4819 - val_acc: 0.7619
1755 Epoch 859/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1756 l
    val_loss: 0.4819 - val_acc: 0.7619
1757 Epoch 860/10000
1758 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1759 Epoch 861/10000
1760 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1761 Epoch 862/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1762
     val_loss: 0.4819 - val_acc: 0.7619
1763 Epoch 863/10000
1764 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1765 Epoch 864/10000
1766 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1767 Epoch 865/10000
1768 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1769 Epoch 866/10000
1770 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1771 Epoch 867/10000
1772 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1773 Epoch 868/10000
1774 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1775 Epoch 869/10000
1776 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1777 Epoch 870/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1778
     val_loss: 0.4819 - val_acc: 0.7619
1779 Epoch 871/10000
1780 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1781 Epoch 872/10000
1782 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1783 Epoch 873/10000
1784 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1785 Epoch 874/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1786
     val_loss: 0.4819 - val_acc: 0.7619
1787 Epoch 875/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1788 l
    val_loss: 0.4819 - val_acc: 0.7619
1789 Epoch 876/10000
1790 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1791 Epoch 877/10000
1792 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1793 Epoch 878/10000
1794
     - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1795 Epoch 879/10000
1796 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1797 Epoch 880/10000
1798 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1799 Epoch 881/10000
1800 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1801 Epoch 882/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1802
     val_loss: 0.4819 - val_acc: 0.7619
1803 Epoch 883/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1804 l
    val_loss: 0.4819 - val_acc: 0.7619
1805 Epoch 884/10000
1806 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1807 Epoch 885/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1808
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1809 Epoch 886/10000
1810 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1811 Epoch 887/10000
1812 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1813 Epoch 888/10000
1814 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1815 Epoch 889/10000
1816 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1817 Epoch 890/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1818
     val_loss: 0.4819 - val_acc: 0.7619
1819 Epoch 891/10000
1820 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1821 Epoch 892/10000
1822 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1823 Epoch 893/10000
1824 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4818 - val_acc: 0.7619
```

```
1825 Epoch 894/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1826
     val_loss: 0.4818 - val_acc: 0.7619
1827 Epoch 895/10000
1828 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4818 - val_acc: 0.7619
1829 Epoch 896/10000
1830 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4818 - val_acc: 0.7619
1831 Epoch 897/10000
1832 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1833 Epoch 898/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1834
     val_loss: 0.4819 - val_acc: 0.7619
1835 Epoch 899/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1836 I
    val_loss: 0.4818 - val_acc: 0.7619
1837 Epoch 900/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
1838
     val_loss: 0.4819 - val_acc: 0.7619
1839 Epoch 901/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1840 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1841 Epoch 902/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1842
     val_loss: 0.4819 - val_acc: 0.7619
1843 Epoch 903/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1844 l
     val_loss: 0.4819 - val_acc: 0.7619
1845 Epoch 904/10000
1846 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1847 Epoch 905/10000
1848 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1849 Epoch 906/10000
1850 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1851 Epoch 907/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1852
     val_loss: 0.4819 - val_acc: 0.7619
1853 Epoch 908/10000
1854 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1855 Epoch 909/10000
     - 0s - loss: 0.4019 - acc: 0.82<u>56</u> -
1856
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1857 Epoch 910/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1858
     val_loss: 0.4819 - val_acc: 0.7619
1859 Epoch 911/10000
1860 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1861 Epoch 912/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1862 l
     val_loss: 0.4819 - val_acc: 0.7619
1863 Epoch 913/10000
1864 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1865 Epoch 914/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1866
     val_loss: 0.4819 - val_acc: 0.7619
1867 Epoch 915/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1868
    val_loss: 0.4819 - val_acc: 0.7619
1869 Epoch 916/10000
1870 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1871 Epoch 917/10000
1872 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1873 Epoch 918/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1874 |
     val_loss: 0.4819 - val_acc: 0.7619
1875 Epoch 919/10000
1876 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1877 Epoch 920/10000
1878 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1879 Epoch 921/10000
1880 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1881 Epoch 922/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1882
     val_loss: 0.4819 - val_acc: 0.7619
1883 Epoch 923/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1884
    val_loss: 0.4819 - val_acc: 0.7619
1885 Epoch 924/10000
1886 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1887 Epoch 925/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1888
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1889 Epoch 926/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1890 |
     val_loss: 0.4819 - val_acc: 0.7619
1891 Epoch 927/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1892 l
     val_loss: 0.4819 - val_acc: 0.7619
1893 Epoch 928/10000
1894 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1895 Epoch 929/10000
1896 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1897 Epoch 930/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1898
     val_loss: 0.4819 - val_acc: 0.7619
1899 Epoch 931/10000
1900 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1901 Epoch 932/10000
1902 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1903 Epoch 933/10000
1904 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1905 Epoch 934/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1906
     val_loss: 0.4819 - val_acc: 0.7619
1907 Epoch 935/10000
1908 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1909 Epoch 936/10000
1910 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1911 Epoch 937/10000
1912 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1913 Epoch 938/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1914
    val_loss: 0.4819 - val_acc: 0.7619
1915 Epoch 939/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1916 I
    val_loss: 0.4819 - val_acc: 0.7619
1917 Epoch 940/10000
1918 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1919 Epoch 941/10000
1920 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1921 Epoch 942/10000
1922
     - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1923 Epoch 943/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1924
     val_loss: 0.4819 - val_acc: 0.7619
1925 Epoch 944/10000
1926 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1927 Epoch 945/10000
1928 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1929 Epoch 946/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1930 l
     val_loss: 0.4819 - val_acc: 0.7619
1931 Epoch 947/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1932
    val_loss: 0.4819 - val_acc: 0.7619
1933 Epoch 948/10000
1934 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1935 Epoch 949/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1936
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1937 Epoch 950/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1938
     val_loss: 0.4819 - val_acc: 0.7619
1939 Epoch 951/10000
1940 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1941 Epoch 952/10000
1942 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1943 Epoch 953/10000
1944 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1945 Epoch 954/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1946
     val_loss: 0.4819 - val_acc: 0.7619
1947 Epoch 955/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1948 |
    val_loss: 0.4819 - val_acc: 0.7619
1949 Epoch 956/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
1950
     val_loss: 0.4819 - val_acc: 0.7619
1951 Epoch 957/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1952
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1953 Epoch 958/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1954
     val_loss: 0.4819 - val_acc: 0.7619
1955 Epoch 959/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1956 l
     val_loss: 0.4819 - val_acc: 0.7619
1957 Epoch 960/10000
1958 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1959 Epoch 961/10000
1960 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1961 Epoch 962/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1962
     val_loss: 0.4819 - val_acc: 0.7619
1963 Epoch 963/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1964
    val_loss: 0.4819 - val_acc: 0.7619
1965 Epoch 964/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1966
     val_loss: 0.4819 - val_acc: 0.7619
1967 Epoch 965/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1968
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1969 Epoch 966/10000
1970 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1971 Epoch 967/10000
1972 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1973 Epoch 968/10000
1974 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1975 Epoch 969/10000
1976 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1977 Epoch 970/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1978
     val_loss: 0.4819 - val_acc: 0.7619
1979 Epoch 971/10000
1980 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
1981 Epoch 972/10000
1982 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1983 Epoch 973/10000
1984 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
1985 Epoch 974/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1986
     val_loss: 0.4819 - val_acc: 0.7619
1987 Epoch 975/10000
1988 - 0s - Loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1989 Epoch 976/10000
1990 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1991 Epoch 977/10000
1992 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
1993 Epoch 978/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1994
     val_loss: 0.4819 - val_acc: 0.7619
1995 Epoch 979/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
1996 |
    val_loss: 0.4819 - val_acc: 0.7619
1997 Epoch 980/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
1998
     val_loss: 0.4819 - val_acc: 0.7619
1999 Epoch 981/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2000 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2001 Epoch 982/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
2002
     val_loss: 0.4819 - val_acc: 0.7619
2003 Epoch 983/10000
2004 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2005 Epoch 984/10000
2006 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2007 Epoch 985/10000
2008 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2009 Epoch 986/10000
2010 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2011 Epoch 987/10000
2012 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
2013 Epoch 988/10000
2014 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2015 Epoch 989/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
2016
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2017 Epoch 990/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2018
     val_loss: 0.4819 - val_acc: 0.7619
2019 Epoch 991/10000
2020 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2021 Epoch 992/10000
2022 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2023 Epoch 993/10000
2024 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2025 Epoch 994/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2026
     val_loss: 0.4819 - val_acc: 0.7619
2027 Epoch 995/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2028 I
    val_loss: 0.4819 - val_acc: 0.7619
2029 Epoch 996/10000
2030 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2031 Epoch 997/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2032 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2033 Epoch 998/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2034
     val_loss: 0.4819 - val_acc: 0.7619
2035 Epoch 999/10000
2036 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2037 Epoch 1000/10000
2038 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2039 Epoch 1001/10000
2040 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2041 Epoch 1002/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2042
     val_loss: 0.4819 - val_acc: 0.7619
2043 Epoch 1003/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2044 l
    val_loss: 0.4819 - val_acc: 0.7619
2045 Epoch 1004/10000
2046 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2047 Epoch 1005/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2048
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2049 Epoch 1006/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2050 l
     val_loss: 0.4819 - val_acc: 0.7619
2051 Epoch 1007/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2052
     val_loss: 0.4819 - val_acc: 0.7619
2053 Epoch 1008/10000
2054 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2055 Epoch 1009/10000
2056 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2057 Epoch 1010/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2058
     val_loss: 0.4819 - val_acc: 0.7619
2059 Epoch 1011/10000
2060 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2061 Epoch 1012/10000
2062 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2063 Epoch 1013/10000
     - 0s - loss: 0.4019 - acc: 0.82<u>56</u> -
2064 l
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2065 Epoch 1014/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2066
     val_loss: 0.4819 - val_acc: 0.7619
2067 Epoch 1015/10000
2068 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2069 Epoch 1016/10000
2070 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2071 Epoch 1017/10000
2072 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2073 Epoch 1018/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2074
     val_loss: 0.4819 - val_acc: 0.7619
2075 Epoch 1019/10000
2076 - 0s - loss: 0.4019 - acc: 0.8256 -
    val_loss: 0.4819 - val_acc: 0.7619
2077 Epoch 1020/10000
    - 0s - loss: 0.4019 - acc: 0.8256 -
2078
     val_loss: 0.4819 - val_acc: 0.7619
2079 Epoch 1021/10000
2080 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2081 Epoch 1022/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2082
     val_loss: 0.4819 - val_acc: 0.7619
2083 Epoch 1023/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2084 l
     val_loss: 0.4819 - val_acc: 0.7619
2085 Epoch 1024/10000
2086 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2087 Epoch 1025/10000
2088 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2089 Epoch 1026/10000
2090 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2091 Epoch 1027/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2092 l
     val_loss: 0.4819 - val_acc: 0.7619
2093 Epoch 1028/10000
2094 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2095 Epoch 1029/10000
     - 0s - loss: 0.4019 - acc: 0.82<u>56</u> -
2096
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2097 Epoch 1030/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2098
     val_loss: 0.4819 - val_acc: 0.7619
2099 Epoch 1031/10000
2100 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2101 Epoch 1032/10000
2102 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2103 Epoch 1033/10000
2104 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2105 Epoch 1034/10000
     - 0s - loss: 0.4019 - acc: 0.8256 -
2106
     val_loss: 0.4819 - val_acc: 0.7619
2107 Epoch 1035/10000
2108 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2109 Epoch 1036/10000
2110 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2111 Epoch 1037/10000
2112 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
```

```
2113 Epoch 1038/10000
2114 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2115 Epoch 1039/10000
2116 - 0s - loss: 0.4019 - acc: 0.8256
     val_loss: 0.4819 - val_acc: 0.7619
2117 Epoch 1040/10000
2118 - 0s - loss: 0.4019 - acc: 0.8256 -
     val_loss: 0.4819 - val_acc: 0.7619
2119 Epoch 01040: early stopping
2120 history. history. keys = ['acc', 'loss
     , 'val_acc', 'val_loss', 'lr']
2121 history.history = {'acc': [0.
     6774193548387096, O. 7514934289127837,
     0.7885304659498208, 0.7968936680038343
       0.76583034654672, 0.7945041816721681
       0.7777777784899, 0.780167264109444
       0. 7861409797605791, 0.
     790919952281487, 0.7909199522102748, 0
     . 7885304659498208, 0. 7968936679326221
       0.7968936678614098, 0.
     800477897323303, 0.800477897323303, 0.
     798088411062849, 0.806451612974438, 0.
     8004778973945152, 0.7980884109916367,
```

```
2121 0.8052568699154233, 0.8016726403823178
       0.8076463560334528, 0.
     8040621266427718, 0. 8136200716845878,
     0. 8076463560334528, 0. 8088410993061043
       0.8136200717558001, 0.
     799283154193076, 0. 8064516130456503,
     . 8040621266427718, 0. 8088410991636799
       0.8160095579450418, 0.
     8076463560334528, 0. 8052568698442111,
     0. 8052568698442111,   0. 810035842365119
       0.8028673836549692, 0.
     8076463561046651, 0.8124253286967853,
     0. 808841099234892, 0. 8076463561046651
       0.8112305854241338, 0.
     8160095580162541, 0.8064516129032258,
     0. 806451612974438,   0. 8100358424363313
     , 0.8112305855665582, 0.
     8124253286967853, 0. 8112305854241338,
     0. 817204301146481,   0. 8076463561046651
       0.812425328625573, 0.
     8112305854953461, 0. 8160095580162541,
     0. 8112305854241338, 0. 8160095579450418
       0.8160095580874663, 0.
     8136200717558001, 0. 8160095580162541,
```

```
2121 0.8112305854241338, 0.813620071755800
       0.8100358422939068, 0.
     8124253285543608, 0. 817204301146481, 0
     . 8112305854953461, 0. 8195937874069351
       0.8183990442767081, 0.
     8183990443479203, 0. 8136200716845878,
     0.8136200717558001, 0.82437275992<u>78431</u>
       0.8207885304659498, 0.
     8255675029868578, 0. 814814814886027, 0
     . 8148148148148148, 0. 8172043010752689
       0.8148148148148148. 0.
     818399044241102, 0.8207885304659498, 0
     . 8183990442767081, 0. 820788530537162,
     0. 8100358422939068, 0. 8195937874781473
       0.8183990442054958, 0.
     8160095579628449, 0.8267622461882971,
     0. 820788530537162, 0. 8243727598566308
       0.8195937873357229, 0.
     8219832736673891, 0. 8195937873535258,
     0. 820788530537162, 0. 8172043010752689
       0.827956989318524, 0.820788530537162
       0.8243727598566308, 0.82556750305807
       0.827956989318524, 0.
     8219832736673891, 0. 8172043012176933,
```

```
2121 0.8267622461170848, 0.8267622461882971
       0.82556750305807, 0.8207885304659498
       0.82556750305807, 0.8219832735961768
       0.8279569892473119, 0.
     8195937873357229, 0.8243727598566308,
     0. 8195937874069351,   0. 8255675029868578
     , 0.8255675031292823, 0.
     8267622461882971, 0. 8291517323775388,
     0. 8255675029868578, 0. 8207885306083743
     , 0.8255675029868578, 0.
     8267622461882971,0. 8231780167264038,
     0. 8255675029868578, 0. 8291517323775388
       0.8267622461882971, 0.
     8267622461170848, 0.8291517324487511,
     0.8243727599278431, 0.82556750305807,
     0. 8255675029868578, 0. 8267622461526909
     , 0.8243727599990553, 0.
     8351254481710984,0. 8219832737386013,
     0. 8255675029868578, 0. 827956989318524
     , 0.8231780167264038, 0.
     831541218709205, 0.82556750305807, 0.
     8219832736673891, 0. 8219832735961768,
     0. 8279569892473119, 0. 8291517325199633
     , 0.8267622461882971, 0.
```

```
2121 8267622462595093, 0.82556750305807, 0.
     8267622461170848, 0.825567503022464, 0
     .82556750305807, 0.825567503022464, 0.
     8267622462595093, 0.82556750305807, 0.
     827956989318524, 0.82556750305807, 0.
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2124 ###########model evaluate
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2126 results val_acc: 0.7862595415297355
2127
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2128
2129
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