

```

1 "C:\Program Files\Python37\python.exe" "C:/Users/JDEAGAN/OneDrive - Environmental Protection Agency (EPA)/Profile/Desktop/Projects/AI/ArtificialIntel/BuildingIdentifier/ImageAnnotation/KerasTunerDeagan.py"
2 2021-10-19 08:44:00.278121: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll'; dlerror: cudart64_110.dll not found
3 2021-10-19 08:44:00.278570: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.
4 THIS IS THE PROPER KERAS TUNER
   ////////////////////////////////////////
   ////////////////////////////////////////
   ////////////////////////////////////////
   ////////////////////////////////////////
   //
5 2.6.0
6 Found 7811 files belonging to 6 classes.
7 Using 6249 files for training.
8 2021-10-19 08:44:09.089500: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'nvcuda.dll'; dlerror: nvcuda.dll not found
9 2021-10-19 08:44:09.090152: W tensorflow/stream_executor/cuda/cuda_driver.cc:269] failed call to cuInit: UNKNOWN ERROR (303)
10 2021-10-19 08:44:09.109210: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:169] retrieving CUDA diagnostic information for host: D26265VWTB0E
11 2021-10-19 08:44:09.109775: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:176] hostname: D26265VWTB0E
12 2021-10-19 08:44:09.110312: I tensorflow/core/platform/cpu_feature_guard.cc:142] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX AVX2

```

```

13 To enable them in other operations, rebuild
    TensorFlow with the appropriate compiler flags.
14 Found 7811 files belonging to 6 classes.
15 Using 1562 files for validation.
16 Found 864 files belonging to 6 classes.
17 Model: "sequential"

```

```

18 -----
19 Layer (type)                Output Shape
                                Param #
20 =====
21 rescaling (Rescaling)       (None, 256, 256, 3
    )                0
22 -----
23 random_flip (RandomFlip)    (None, 256, 256, 3
    )                0
24 -----
25 random_rotation (RandomRotat (None, 256, 256, 3
    )                0
26 -----
27 conv2d (Conv2D)             (None, 254, 254, 32
    )            896
28 -----
29 max_pooling2d (MaxPooling2D) (None, 127, 127, 32
    )                0
30 -----
31 conv2d_1 (Conv2D)           (None, 125, 125, 64
    )           18496
32 -----
33 max_pooling2d_1 (MaxPooling2 (None, 62, 62, 64
    )                0
34 -----
35 conv2d_2 (Conv2D)           (None, 60, 60, 128

```

```

35 )          73856
36 -----
37 max_pooling2d_2 (MaxPooling2 (None, 30, 30, 128
   )          0
38 -----
39 flatten (Flatten)          (None, 115200
   )          0
40 -----
41 dense (Dense)          (None, 128
   )          14745728
42 -----
43 dense_1 (Dense)          (None, 6
   )          774
44 =====
45 Total params: 14,839,750
46 Trainable params: 14,839,750
47 Non-trainable params: 0
48 -----
49 Epoch 1/30
50 C:\Users\JDEAGAN\AppData\Roaming\Python\Python37\site
   -packages\keras\backend.py:4907: UserWarning: "`
   sparse_categorical_crossentropy` received `
   from_logits=True`, but the `output` argument was
   produced by a sigmoid or softmax activation and thus
   does not represent logits. Was this intended?"
51   "`sparse_categorical_crossentropy` received `
   from_logits=True`, but '
52 2021-10-19 08:44:11.371521: I tensorflow/compiler/
   mlir/mlir_graph_optimization_pass.cc:185] None of the
   MLIR Optimization Passes are enabled (registered 2)
53   1/196 [.....] - ETA: 12:25
   - loss: 1.7877 - accuracy: 0.12502021-10-19 08:44:14
   .651599: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
54   4/196 [.....] - ETA: 8:03

```

```

54 - loss: 3.8438 - accuracy: 0.31252021-10-19 08:44:22
   .226304: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
55 5/196 [.....] - ETA: 7:58
   - loss: 3.3588 - accuracy: 0.29372021-10-19 08:44:24
   .704798: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
56 13/196 [>.....] - ETA: 7:30
   - loss: 2.1606 - accuracy: 0.36062021-10-19 08:44:44
   .211971: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
57 46/196 [=====>.....] - ETA: 5:36
   - loss: 1.6058 - accuracy: 0.41922021-10-19 08:45:55
   .586028: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
58 47/196 [=====>.....] - ETA: 5:33
   - loss: 1.6056 - accuracy: 0.41892021-10-19 08:45:57
   .564473: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
59 56/196 [=====>.....] - ETA: 5:11
   - loss: 1.5574 - accuracy: 0.42862021-10-19 08:46:16
   .916793: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
60 59/196 [=====>.....] - ETA: 5:03
   - loss: 1.5451 - accuracy: 0.42742021-10-19 08:46:23
   .118988: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
61 60/196 [=====>.....] - ETA: 5:01
   - loss: 1.5438 - accuracy: 0.42862021-10-19 08:46:25
   .252747: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
62 65/196 [=====>.....] - ETA: 4:48
   - loss: 1.5287 - accuracy: 0.42742021-10-19 08:46:35
   .845721: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
63 73/196 [=====>.....] - ETA: 4:30
   - loss: 1.5092 - accuracy: 0.42722021-10-19 08:46:52
   .845086: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
64 76/196 [=====>.....] - ETA: 4:24
   - loss: 1.5019 - accuracy: 0.42892021-10-19 08:46:59

```

```
64 .871083: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile
65 82/196 [=====>.....] - ETA: 4:10
- loss: 1.4912 - accuracy: 0.42872021-10-19 08:47:
12.464810: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
66 87/196 [=====>.....] - ETA: 3:58
- loss: 1.4831 - accuracy: 0.42642021-10-19 08:47:
22.762165: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
67 92/196 [=====>.....] - ETA: 3:47
- loss: 1.4771 - accuracy: 0.42432021-10-19 08:47:
33.857706: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
68 96/196 [=====>.....] - ETA: 3:40
- loss: 1.4720 - accuracy: 0.42712021-10-19 08:47:
44.545353: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
69 108/196 [=====>.....] - ETA: 3:16
- loss: 1.4591 - accuracy: 0.43612021-10-19 08:48:
13.170102: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
70 117/196 [=====>.....] - ETA: 2:55
- loss: 1.4523 - accuracy: 0.43702021-10-19 08:48:
31.833175: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
71 119/196 [=====>.....] - ETA: 2:50
- loss: 1.4521 - accuracy: 0.43572021-10-19 08:48:
35.977176: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
72 121/196 [=====>.....] - ETA: 2:45
- loss: 1.4487 - accuracy: 0.43542021-10-19 08:48:
40.274896: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
73 2021-10-19 08:48:40.840705: W tensorflow/core/lib/
png/png_io.cc:88] PNG warning: iCCP: known incorrect
sRGB profile
74 126/196 [=====>.....] - ETA: 2:34
- loss: 1.4427 - accuracy: 0.43802021-10-19 08:48:
50.646176: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile
```

```
75 129/196 [=====>.....] - ETA: 2:27
    - loss: 1.4412 - accuracy: 0.43922021-10-19 08:48:
    56.749207: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
76 130/196 [=====>.....] - ETA: 2:25
    - loss: 1.4437 - accuracy: 0.43822021-10-19 08:48:
    59.377739: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
77 133/196 [=====>.....] - ETA: 2:18
    - loss: 1.4397 - accuracy: 0.43982021-10-19 08:49:
    05.917708: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
78 135/196 [=====>.....] - ETA: 2:14
    - loss: 1.4378 - accuracy: 0.44032021-10-19 08:49:
    09.898488: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
79 2021-10-19 08:49:09.902949: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
80 154/196 [=====>.....] - ETA: 1:31
    - loss: 1.4246 - accuracy: 0.44442021-10-19 08:49:
    49.586052: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
81 165/196 [=====>.....] - ETA: 1:07
    - loss: 1.4225 - accuracy: 0.43982021-10-19 08:50:
    13.289299: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
82 171/196 [=====>.....] - ETA: 54s
    - loss: 1.4162 - accuracy: 0.44282021-10-19 08:50:
    26.958365: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
83 173/196 [=====>.....] - ETA: 50s
    - loss: 1.4155 - accuracy: 0.44292021-10-19 08:50:
    31.766755: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
84 196/196 [=====] - ETA: 0s
    - loss: 1.4072 - accuracy: 0.44222021-10-19 08:51:
    19.541062: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
85 2021-10-19 08:51:19.732028: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
```

```
85 sRGB profile
86 2021-10-19 08:51:21.047983: W tensorflow/core/lib/
  png/png_io.cc:88] PNG warning: iCCP: known incorrect
  sRGB profile
87 2021-10-19 08:51:34.495232: W tensorflow/core/lib/
  png/png_io.cc:88] PNG warning: iCCP: known incorrect
  sRGB profile
88 2021-10-19 08:51:35.073951: W tensorflow/core/lib/
  png/png_io.cc:88] PNG warning: iCCP: known incorrect
  sRGB profile
89 2021-10-19 08:51:42.159204: W tensorflow/core/lib/
  png/png_io.cc:88] PNG warning: iCCP: known incorrect
  sRGB profile
90 196/196 [=====] - 459s 2s/
  step - loss: 1.4072 - accuracy: 0.4422 - val_loss: 1
  .2969 - val_accuracy: 0.4795
91 Epoch 2/30
92 196/196 [=====] - 416s 2s/
  step - loss: 1.3447 - accuracy: 0.4546 - val_loss: 1
  .2890 - val_accuracy: 0.4802
93 Epoch 3/30
94 196/196 [=====] - 435s 2s/
  step - loss: 1.3159 - accuracy: 0.4566 - val_loss: 1
  .3260 - val_accuracy: 0.4334
95 Epoch 4/30
96 196/196 [=====] - 423s 2s/
  step - loss: 1.3022 - accuracy: 0.4718 - val_loss: 1
  .2637 - val_accuracy: 0.5026
97 Epoch 5/30
98 196/196 [=====] - 431s 2s/
  step - loss: 1.2936 - accuracy: 0.4727 - val_loss: 1
  .2503 - val_accuracy: 0.5115
99 Epoch 6/30
100 196/196 [=====] - 417s 2s/
  step - loss: 1.2853 - accuracy: 0.4742 - val_loss: 1
  .2605 - val_accuracy: 0.4994
101 Epoch 7/30
102 196/196 [=====] - 407s 2s/
  step - loss: 1.2766 - accuracy: 0.4817 - val_loss: 1
  .2343 - val_accuracy: 0.5154
103 Epoch 8/30
```

```
104 196/196 [=====] - 444s 2s/  
    step - loss: 1.2719 - accuracy: 0.4814 - val_loss: 1  
    .2667 - val_accuracy: 0.5006  
105 Epoch 9/30  
106 196/196 [=====] - 422s 2s/  
    step - loss: 1.2706 - accuracy: 0.4796 - val_loss: 1  
    .2595 - val_accuracy: 0.5032  
107 Epoch 10/30  
108 196/196 [=====] - 407s 2s/  
    step - loss: 1.2645 - accuracy: 0.4838 - val_loss: 1  
    .2489 - val_accuracy: 0.4942  
109 Epoch 11/30  
110 196/196 [=====] - 406s 2s/  
    step - loss: 1.2589 - accuracy: 0.4850 - val_loss: 1  
    .2432 - val_accuracy: 0.5038  
111 Epoch 12/30  
112 196/196 [=====] - 408s 2s/  
    step - loss: 1.2524 - accuracy: 0.4838 - val_loss: 1  
    .2481 - val_accuracy: 0.5019  
113 Epoch 13/30  
114 196/196 [=====] - 415s 2s/  
    step - loss: 1.2550 - accuracy: 0.4890 - val_loss: 1  
    .2333 - val_accuracy: 0.5173  
115 Epoch 14/30  
116 196/196 [=====] - 425s 2s/  
    step - loss: 1.2483 - accuracy: 0.4897 - val_loss: 1  
    .2213 - val_accuracy: 0.5179  
117 Epoch 15/30  
118 196/196 [=====] - 427s 2s/  
    step - loss: 1.2427 - accuracy: 0.4908 - val_loss: 1  
    .2380 - val_accuracy: 0.4987  
119 Epoch 16/30  
120 196/196 [=====] - 434s 2s/  
    step - loss: 1.2393 - accuracy: 0.4954 - val_loss: 1  
    .2219 - val_accuracy: 0.5128  
121 Epoch 17/30  
122 196/196 [=====] - 444s 2s/  
    step - loss: 1.2320 - accuracy: 0.4954 - val_loss: 1  
    .2177 - val_accuracy: 0.5166  
123 Epoch 18/30  
124 196/196 [=====] - 445s 2s/
```



```

124 step - loss: 1.2195 - accuracy: 0.5039 - val_loss: 1
    .2118 - val_accuracy: 0.5198
125 Epoch 19/30
126 196/196 [=====] - 452s 2s/
    step - loss: 1.2182 - accuracy: 0.4975 - val_loss: 1
    .2161 - val_accuracy: 0.5205
127 Epoch 20/30
128 196/196 [=====] - 425s 2s/
    step - loss: 1.2149 - accuracy: 0.5060 - val_loss: 1
    .2271 - val_accuracy: 0.5070
129 Epoch 21/30
130 196/196 [=====] - 425s 2s/
    step - loss: 1.2063 - accuracy: 0.5076 - val_loss: 1
    .2267 - val_accuracy: 0.5128
131 Epoch 22/30
132 196/196 [=====] - 416s 2s/
    step - loss: 1.2015 - accuracy: 0.5042 - val_loss: 1
    .2235 - val_accuracy: 0.5160
133 Epoch 23/30
134 196/196 [=====] - 435s 2s/
    step - loss: 1.1969 - accuracy: 0.5129 - val_loss: 1
    .2085 - val_accuracy: 0.5218
135 Epoch 24/30
136 196/196 [=====] - 449s 2s/
    step - loss: 1.1914 - accuracy: 0.5198 - val_loss: 1
    .2123 - val_accuracy: 0.5096
137 Epoch 25/30
138 196/196 [=====] - 464s 2s/
    step - loss: 1.1864 - accuracy: 0.5198 - val_loss: 1
    .2074 - val_accuracy: 0.5147
139 Epoch 26/30
140 196/196 [=====] - 463s 2s/
    step - loss: 1.1750 - accuracy: 0.5254 - val_loss: 1
    .2036 - val_accuracy: 0.5192
141 Epoch 27/30
142 196/196 [=====] - 457s 2s/
    step - loss: 1.1663 - accuracy: 0.5318 - val_loss: 1
    .2039 - val_accuracy: 0.5269
143 Epoch 28/30
144 196/196 [=====] - 446s 2s/
    step - loss: 1.1602 - accuracy: 0.5292 - val_loss: 1

```

```
144 .2074 - val_accuracy: 0.5128
145 Epoch 29/30
146 196/196 [=====] - 458s 2s/
    step - loss: 1.1532 - accuracy: 0.5399 - val_loss: 1
    .2015 - val_accuracy: 0.5237
147 Epoch 30/30
148 196/196 [=====] - 454s 2s/
    step - loss: 1.1474 - accuracy: 0.5314 - val_loss: 1
    .2153 - val_accuracy: 0.5301
149 2021-10-19 12:21:02.073620: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
150 1/27 [>.....] - ETA: 44s -
    loss: 0.9545 - accuracy: 0.65622021-10-19 12:21:03.
    150166: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
151 8/27 [=====>.....] - ETA: 12s -
    loss: 1.1961 - accuracy: 0.53522021-10-19 12:21:07.
    474648: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
152 2021-10-19 12:21:07.554760: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
153 2021-10-19 12:21:07.592759: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'desc': ICC profile tag start not a
    multiple of 4
154 2021-10-19 12:21:07.593369: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'wtpt': ICC profile tag start not a
    multiple of 4
155 2021-10-19 12:21:07.593767: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'bkpt': ICC profile tag start not a
    multiple of 4
156 2021-10-19 12:21:07.594217: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'rXYZ': ICC profile tag start not a
    multiple of 4
157 2021-10-19 12:21:07.594625: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
```

```
157 Profile': 'gXYZ': ICC profile tag start not a
    multiple of 4
158 2021-10-19 12:21:07.595027: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'bXYZ': ICC profile tag start not a
    multiple of 4
159 2021-10-19 12:21:07.595410: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'dmnd': ICC profile tag start not a
    multiple of 4
160 2021-10-19 12:21:07.595861: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'dmdd': ICC profile tag start not a
    multiple of 4
161 2021-10-19 12:21:07.596262: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'vued': ICC profile tag start not a
    multiple of 4
162 2021-10-19 12:21:07.596657: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'view': ICC profile tag start not a
    multiple of 4
163 2021-10-19 12:21:07.602121: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'lumi': ICC profile tag start not a
    multiple of 4
164 2021-10-19 12:21:07.602689: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'meas': ICC profile tag start not a
    multiple of 4
165 2021-10-19 12:21:07.603249: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'tech': ICC profile tag start not a
    multiple of 4
166 2021-10-19 12:21:07.603756: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'rTRC': ICC profile tag start not a
    multiple of 4
167 2021-10-19 12:21:07.604192: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'gTRC': ICC profile tag start not a
```

```
167 multiple of 4
168 2021-10-19 12:21:07.604652: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'bTRC': ICC profile tag start not a
    multiple of 4
169 15/27 [=====>.....] - ETA: 7s -
    loss: 1.2323 - accuracy: 0.54372021-10-19 12:21:11.
    952088: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
170 27/27 [=====] - 18s 615ms/
    step - loss: 1.2333 - accuracy: 0.5498
171 Accuracy: 0.5497685074806213
172 Loss: 1.233312726020813
173 end
174
175 Process finished with exit code 0
176
```