```
 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 2021-10-14 08:22:18.990843: 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 2021-10-14 08:22:18.991278: 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 2021-10-14 08:22:33.657783: W tensorflow/
   stream_executor/platform/default/dso_loader.cc:64]
   Could not load dynamic library 'nvcuda.dll'; dlerror
   : nvcuda.dll not found
 9 2021-10-14 08:22:33.658261: W tensorflow/
   stream_executor/cuda/cuda_driver.cc:269] failed call
   to cuInit: UNKNOWN ERROR (303)
10 2021-10-14 08:22:33.675383: I tensorflow/
   stream_executor/cuda/cuda_diagnostics.cc:169]
   retrieving CUDA diagnostic information for host:
   D26265VWTBOE
11 2021-10-14 08:22:33.675946: I tensorflow/
   stream_executor/cuda/cuda_diagnostics.cc:176]
   hostname: D26265VWTBOE
12 2021-10-14 08:22:33.676550: 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, 256
   )              29491456
42 _____
   _____
43 dense_1 (Dense)              (None, 256
   )              65792
44 _____
   _____
45 dense_2 (Dense)              (None, 128
   )              32896
46 _____
   _____
47 dense_3 (Dense)              (None, 6
   )              774
48 ==============================================
   ============
49 Total params: 29,684,166
50 Trainable params: 29,684,166
51 Non-trainable params: 0
52 _____
   _____
53 Epoch 1/30
54 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?"
55   '"`sparse_categorical_crossentropy` received `
   from_logits=True`, but '
```

```
56 2021-10-14 08:22:36.274021: I tensorflow/compiler/
   mlir/mlir_graph_optimization_pass.cc:185] None of the
   MLIR Optimization Passes are enabled (registered 2)
57  2/196 [..............................] - ETA: 8:29
   - loss: 3.2003 - accuracy: 0.3125 2021-10-14 08:22:
   43.054468: W tensorflow/core/lib/png/png_io.cc:88]
   PNG warning: iCCP: known incorrect sRGB profile
58  4/196 [..............................] - ETA: 8:35
   - loss: 3.1102 - accuracy: 0.32032021-10-14 08:22:48
   .755003: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
59 2021-10-14 08:22:51.589900: W tensorflow/core/lib/png
   /png_io.cc:88] PNG warning: iCCP: known incorrect
   sRGB profile
60  13/196 [>.............................] - ETA: 7:50
   - loss: 2.0222 - accuracy: 0.33652021-10-14 08:23:11
   .548687: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
61  45/196 [=====>........................] - ETA: 5:43
   - loss: 1.5706 - accuracy: 0.40972021-10-14 08:24:20
   .606219: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
62  46/196 [======>.......................] - ETA: 5:40
   - loss: 1.5683 - accuracy: 0.41032021-10-14 08:24:22
   .672983: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
63  55/196 [=======>......................] - ETA: 5:17
   - loss: 1.5311 - accuracy: 0.42102021-10-14 08:24:42
   .074396: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
64  58/196 [=======>......................] - ETA: 5:09
   - loss: 1.5188 - accuracy: 0.42082021-10-14 08:24:48
   .352906: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
65  59/196 [========>.....................] - ETA: 5:06
   - loss: 1.5169 - accuracy: 0.42062021-10-14 08:24:50
   .461067: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
66  64/196 [========>.....................] - ETA: 4:57
   - loss: 1.5064 - accuracy: 0.42192021-10-14 08:25:02
   .445391: W tensorflow/core/lib/png/png_io.cc:88] PNG
```

```
66 warning: iCCP: known incorrect sRGB profile
67  72/196 [=========>...................] - ETA: 4:41
     - loss: 1.4902 - accuracy: 0.42142021-10-14 08:25:
    22.028616: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
68  75/196 [=========>...................] - ETA: 4:34
     - loss: 1.4841 - accuracy: 0.42332021-10-14 08:25:
    28.531738: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
69  81/196 [===========>.................] - ETA: 4:20
     - loss: 1.4754 - accuracy: 0.42442021-10-14 08:25:
    41.863394: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
70  86/196 [============>................] - ETA: 4:08
     - loss: 1.4665 - accuracy: 0.42302021-10-14 08:25:
    52.359403: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
71  91/196 [============>................] - ETA: 3:56
     - loss: 1.4616 - accuracy: 0.42342021-10-14 08:26:
    03.261420: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
72  95/196 [=============>...............] - ETA: 3:46
     - loss: 1.4579 - accuracy: 0.42602021-10-14 08:26:
    11.835610: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
73 108/196 [===============>.............] - ETA: 3:17
     - loss: 1.4460 - accuracy: 0.43612021-10-14 08:26:
    40.447176: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
74 117/196 [=================>...........] - ETA: 2:56
     - loss: 1.4405 - accuracy: 0.43702021-10-14 08:26:
    59.928592: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
75 119/196 [==================>..........] - ETA: 2:52
     - loss: 1.4408 - accuracy: 0.43592021-10-14 08:27:
    04.276720: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
76 121/196 [==================>..........] - ETA: 2:47
     - loss: 1.4369 - accuracy: 0.43752021-10-14 08:27:
    08.834185: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
```

```
77  2021-10-14 08:27:09.488819: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
78  126/196 [===================>..........] - ETA: 2:36
     - loss: 1.4308 - accuracy: 0.44002021-10-14 08:27:
    19.583402: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
79  129/196 [===================>..........] - ETA: 2:29
     - loss: 1.4297 - accuracy: 0.44112021-10-14 08:27:
    25.825604: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
80  130/196 [===================>..........] - ETA: 2:27
     - loss: 1.4322 - accuracy: 0.44012021-10-14 08:27:
    28.130028: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
81  133/196 [====================>.........] - ETA: 2:20
     - loss: 1.4285 - accuracy: 0.44172021-10-14 08:27:
    34.578719: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
82  135/196 [=====================>.........] - ETA: 2:16
     - loss: 1.4271 - accuracy: 0.44212021-10-14 08:27:
    39.985713: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
83  2021-10-14 08:27:39.986147: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
84  154/196 [=======================>.......] - ETA: 1:33
     - loss: 1.4153 - accuracy: 0.44622021-10-14 08:28:
    22.382688: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
85  165/196 [=========================>.....] - ETA: 1:09
     - loss: 1.4140 - accuracy: 0.44362021-10-14 08:28:
    46.403901: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
86  171/196 [==========================>....] - ETA: 55s
     - loss: 1.4087 - accuracy: 0.44652021-10-14 08:28:
    58.930038: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
87  173/196 [==========================>....] - ETA: 51s
     - loss: 1.4077 - accuracy: 0.44652021-10-14 08:29:
    03.123794: W tensorflow/core/lib/png/png_io.cc:88]
```

```
 87 PNG warning: iCCP: known incorrect sRGB profile
 88 196/196 [==============================] - ETA: 0s
     - loss: 1.3998 - accuracy: 0.44602021-10-14 08:29:
    51.969666: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
 89 2021-10-14 08:29:52.183509: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
 90 2021-10-14 08:29:53.895924: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
 91 2021-10-14 08:30:08.957632: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
 92 2021-10-14 08:30:09.435965: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
 93 2021-10-14 08:30:16.780550: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
 94 196/196 [==============================] - 469s 2s/
    step - loss: 1.3998 - accuracy: 0.4460 - val_loss: 1
    .3307 - val_accuracy: 0.4795
 95 Epoch 2/30
 96 196/196 [==============================] - 440s 2s/
    step - loss: 1.3397 - accuracy: 0.4542 - val_loss: 1
    .3261 - val_accuracy: 0.4763
 97 Epoch 3/30
 98 196/196 [==============================] - 424s 2s/
    step - loss: 1.3221 - accuracy: 0.4542 - val_loss: 1
    .2972 - val_accuracy: 0.4885
 99 Epoch 4/30
100 196/196 [==============================] - 431s 2s/
    step - loss: 1.3020 - accuracy: 0.4654 - val_loss: 1
    .2896 - val_accuracy: 0.4891
101 Epoch 5/30
102 196/196 [==============================] - 416s 2s/
    step - loss: 1.2886 - accuracy: 0.4759 - val_loss: 1
    .2929 - val_accuracy: 0.4891
103 Epoch 6/30
104 196/196 [==============================] - 417s 2s/
```

```
104 step - loss: 1.2821 - accuracy: 0.4753 - val_loss: 1
    .2746 - val_accuracy: 0.4878
105 Epoch 7/30
106 196/196 [==============================] - 420s 2s/
    step - loss: 1.2792 - accuracy: 0.4798 - val_loss: 1
    .2577 - val_accuracy: 0.5026
107 Epoch 8/30
108 196/196 [==============================] - 426s 2s/
    step - loss: 1.2762 - accuracy: 0.4799 - val_loss: 1
    .2635 - val_accuracy: 0.4936
109 Epoch 9/30
110 196/196 [==============================] - 431s 2s/
    step - loss: 1.2671 - accuracy: 0.4847 - val_loss: 1
    .2947 - val_accuracy: 0.4641
111 Epoch 10/30
112 196/196 [==============================] - 409s 2s/
    step - loss: 1.2636 - accuracy: 0.4892 - val_loss: 1
    .2448 - val_accuracy: 0.5051
113 Epoch 11/30
114 196/196 [==============================] - 417s 2s/
    step - loss: 1.2621 - accuracy: 0.4778 - val_loss: 1
    .2370 - val_accuracy: 0.5096
115 Epoch 12/30
116 196/196 [==============================] - 433s 2s/
    step - loss: 1.2529 - accuracy: 0.4863 - val_loss: 1
    .2263 - val_accuracy: 0.5192
117 Epoch 13/30
118 196/196 [==============================] - 439s 2s/
    step - loss: 1.2470 - accuracy: 0.4897 - val_loss: 1
    .2342 - val_accuracy: 0.5045
119 Epoch 14/30
120 196/196 [==============================] - 422s 2s/
    step - loss: 1.2456 - accuracy: 0.4913 - val_loss: 1
    .2177 - val_accuracy: 0.5186
121 Epoch 15/30
122 196/196 [==============================] - 435s 2s/
    step - loss: 1.2419 - accuracy: 0.4929 - val_loss: 1
    .2130 - val_accuracy: 0.5237
123 Epoch 16/30
124 196/196 [==============================] - 426s 2s/
    step - loss: 1.2374 - accuracy: 0.4969 - val_loss: 1
```

```
124 .2089 - val_accuracy: 0.5269
125 Epoch 17/30
126 196/196 [==============================] - 410s 2s/
    step - loss: 1.2276 - accuracy: 0.5007 - val_loss: 1
    .2135 - val_accuracy: 0.5250
127 Epoch 18/30
128 196/196 [==============================] - 415s 2s/
    step - loss: 1.2261 - accuracy: 0.5014 - val_loss: 1
    .2119 - val_accuracy: 0.5243
129 Epoch 19/30
130 196/196 [==============================] - 419s 2s/
    step - loss: 1.2226 - accuracy: 0.5030 - val_loss: 1
    .2006 - val_accuracy: 0.5320
131 Epoch 20/30
132 196/196 [==============================] - 413s 2s/
    step - loss: 1.2130 - accuracy: 0.5103 - val_loss: 1
    .2002 - val_accuracy: 0.5230
133 Epoch 21/30
134 196/196 [==============================] - 413s 2s/
    step - loss: 1.2145 - accuracy: 0.5084 - val_loss: 1
    .2035 - val_accuracy: 0.5224
135 Epoch 22/30
136 196/196 [==============================] - 421s 2s/
    step - loss: 1.2070 - accuracy: 0.5068 - val_loss: 1
    .2015 - val_accuracy: 0.5288
137 Epoch 23/30
138 196/196 [==============================] - 416s 2s/
    step - loss: 1.1966 - accuracy: 0.5116 - val_loss: 1
    .2191 - val_accuracy: 0.5262
139 Epoch 24/30
140 196/196 [==============================] - 428s 2s/
    step - loss: 1.1961 - accuracy: 0.5134 - val_loss: 1
    .1953 - val_accuracy: 0.5275
141 Epoch 25/30
142 196/196 [==============================] - 428s 2s/
    step - loss: 1.1860 - accuracy: 0.5148 - val_loss: 1
    .2035 - val_accuracy: 0.5250
143 Epoch 26/30
144 196/196 [==============================] - 438s 2s/
    step - loss: 1.1883 - accuracy: 0.5169 - val_loss: 1
    .1950 - val_accuracy: 0.5230
```

```
145 Epoch 27/30
146 196/196 [==============================] - 426s 2s/
    step - loss: 1.1800 - accuracy: 0.5220 - val_loss: 1
    .2041 - val_accuracy: 0.5282
147 Epoch 28/30
148 196/196 [==============================] - 418s 2s/
    step - loss: 1.1742 - accuracy: 0.5239 - val_loss: 1
    .2182 - val_accuracy: 0.5256
149 Epoch 29/30
150 196/196 [==============================] - 435s 2s/
    step - loss: 1.1572 - accuracy: 0.5281 - val_loss: 1
    .2188 - val_accuracy: 0.5237
151 Epoch 30/30
152 196/196 [==============================] - 429s 2s/
    step - loss: 1.1592 - accuracy: 0.5300 - val_loss: 1
    .2014 - val_accuracy: 0.5218
153 2021-10-14 11:55:19.300054: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
154  1/27 [>.............................] - ETA: 40s -
    loss: 0.9036 - accuracy: 0.68752021-10-14 11:55:20.
    299983: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
155  8/27 [=======>......................] - ETA: 12s -
    loss: 1.1879 - accuracy: 0.55472021-10-14 11:55:24.
    702423: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
156 2021-10-14 11:55:24.773113: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
157 2021-10-14 11:55:24.841354: 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
158 2021-10-14 11:55:24.841844: 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
159 2021-10-14 11:55:24.842261: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'bkpt': ICC profile tag start not a
```

```
159 multiple of 4
160 2021-10-14 11:55:24.842639: 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
161 2021-10-14 11:55:24.843014: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'gXYZ': ICC profile tag start not a
    multiple of 4
162 2021-10-14 11:55:24.843392: 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
163 2021-10-14 11:55:24.843782: 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
164 2021-10-14 11:55:24.844292: 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
165 2021-10-14 11:55:24.844751: 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
166 2021-10-14 11:55:24.845133: 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
167 2021-10-14 11:55:24.845523: 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
168 2021-10-14 11:55:24.845911: 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
169 2021-10-14 11:55:24.846284: 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
```

```
170 2021-10-14 11:55:24.846667: 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
171 2021-10-14 11:55:24.847745: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'gTRC': ICC profile tag start not a
    multiple of 4
172 2021-10-14 11:55:24.848228: 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
173 15/27 [===============>..............] - ETA: 7s -
    loss: 1.2413 - accuracy: 0.54372021-10-14 11:55:29.
    521093: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
174 27/27 [==============================] - 18s 635ms/
    step - loss: 1.2419 - accuracy: 0.5417
175 Accuracy: 0.5416666865348816
176 Loss: 1.241881012916565
177 end
178
179 Process finished with exit code 0
180
```