```
 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 2021-10-13 16:08:32.620261: 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 2021-10-13 16:08:32.620707: 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 2021-10-13 16:08:47.736995: W tensorflow/
   stream_executor/platform/default/dso_loader.cc:64]
   Could not load dynamic library 'nvcuda.dll'; dlerror
   : nvcuda.dll not found
 9 2021-10-13 16:08:47.737407: W tensorflow/
   stream_executor/cuda/cuda_driver.cc:269] failed call
   to cuInit: UNKNOWN ERROR (303)
10 2021-10-13 16:08:47.754669: I tensorflow/
   stream_executor/cuda/cuda_diagnostics.cc:169]
   retrieving CUDA diagnostic information for host:
   D26265VWTBOE
11 2021-10-13 16:08:47.755295: I tensorflow/
   stream_executor/cuda/cuda_diagnostics.cc:176]
   hostname: D26265VWTBOE
12 2021-10-13 16:08:47.755857: 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, 128
   )                32896
44 _____
   _____
45 dense_2 (Dense)              (None, 128
   )                16512
46 _____
   _____
47 dense_3 (Dense)              (None, 6
   )                774
48 =================================================
   ===========
49 Total params: 29,634,886
50 Trainable params: 29,634,886
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 2021-10-13 16:08:50.170624: I tensorflow/compiler/
mlir/mlir_graph_optimization_pass.cc:185] None of the
MLIR Optimization Passes are enabled (registered 2)

57 2/196 [..............................] - ETA: 6:50
- loss: 1.9493 - accuracy: 0.2812 2021-10-13 16:08:
55.625898: W tensorflow/core/lib/png/png_io.cc:88]
PNG warning: iCCP: known incorrect sRGB profile

58 4/196 [..............................] - ETA: 7:34
- loss: 1.8941 - accuracy: 0.31252021-10-13 16:09:00
.714548: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

59 5/196 [..............................] - ETA: 7:23
- loss: 1.8130 - accuracy: 0.29372021-10-13 16:09:02
.971876: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

60 13/196 [>.............................] - ETA: 6:47
- loss: 1.5644 - accuracy: 0.37502021-10-13 16:09:20
.335404: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

61 46/196 [======>.......................] - ETA: 5:26
- loss: 1.4414 - accuracy: 0.42732021-10-13 16:10:31
.497396: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

62 47/196 [======>.......................] - ETA: 5:24
- loss: 1.4452 - accuracy: 0.42692021-10-13 16:10:33
.557056: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

63 56/196 [=======>......................] - ETA: 5:10
- loss: 1.4240 - accuracy: 0.43532021-10-13 16:10:55
.618807: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

64 59/196 [========>.....................] - ETA: 5:06
- loss: 1.4206 - accuracy: 0.43382021-10-13 16:11:03
.434340: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

65 60/196 [========>.....................] - ETA: 5:04
- loss: 1.4208 - accuracy: 0.43492021-10-13 16:11:05
.736028: W tensorflow/core/lib/png/png_io.cc:88] PNG
warning: iCCP: known incorrect sRGB profile

66 65/196 [=========>....................] - ETA: 4:52
- loss: 1.4158 - accuracy: 0.43372021-10-13 16:11:16

```
66  .325362: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
67  73/196 [=========>...................] - ETA: 4:33
    - loss: 1.4115 - accuracy: 0.43192021-10-13 16:11:
    33.626317: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
68  76/196 [=========>...................] - ETA: 4:26
    - loss: 1.4081 - accuracy: 0.43302021-10-13 16:11:
    40.068636: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
69  82/196 [==========>..................] - ETA: 4:11
    - loss: 1.4035 - accuracy: 0.43252021-10-13 16:11:
    52.568178: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
70  87/196 [===========>.................] - ETA: 4:00
    - loss: 1.4016 - accuracy: 0.43002021-10-13 16:12:
    03.482091: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
71  92/196 [=============>...............] - ETA: 3:50
    - loss: 1.3983 - accuracy: 0.42532021-10-13 16:12:
    15.657442: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
72  96/196 [=============>...............] - ETA: 3:42
    - loss: 1.3969 - accuracy: 0.42812021-10-13 16:12:
    24.879204: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
73  109/196 [===============>.............] - ETA: 3:12
    - loss: 1.3923 - accuracy: 0.43752021-10-13 16:12:
    53.069894: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
74  118/196 [=================>...........] - ETA: 2:52
    - loss: 1.3908 - accuracy: 0.43672021-10-13 16:13:
    12.238697: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
75  120/196 [=================>...........] - ETA: 2:48
    - loss: 1.3887 - accuracy: 0.43832021-10-13 16:13:
    16.957622: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
76  122/196 [=================>...........] - ETA: 2:43
    - loss: 1.3878 - accuracy: 0.43882021-10-13 16:13:
    21.689364: W tensorflow/core/lib/png/png_io.cc:88]
```

```
76 PNG warning: iCCP: known incorrect sRGB profile
77 2021-10-13 16:13:22.383190: W tensorflow/core/lib/
   png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
78 127/196 [==================>...........] - ETA: 2:33
    - loss: 1.3831 - accuracy: 0.44122021-10-13 16:13:
   33.033186: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
79 130/196 [==================>...........] - ETA: 2:26
    - loss: 1.3873 - accuracy: 0.44092021-10-13 16:13:
   40.440591: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
80 131/196 [==================>..........] - ETA: 2:24
    - loss: 1.3852 - accuracy: 0.44232021-10-13 16:13:
   43.221999: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
81 134/196 [===================>..........] - ETA: 2:18
    - loss: 1.3847 - accuracy: 0.44262021-10-13 16:13:
   50.370884: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
82 136/196 [===================>..........] - ETA: 2:13
    - loss: 1.3834 - accuracy: 0.44282021-10-13 16:13:
   54.893461: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
83 2021-10-13 16:13:54.919270: W tensorflow/core/lib/
   png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
84 155/196 [=======================>.......] - ETA: 1:32
    - loss: 1.3783 - accuracy: 0.44602021-10-13 16:14:
   40.818713: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
85 166/196 [=========================>.....] - ETA: 1:07
    - loss: 1.3782 - accuracy: 0.44472021-10-13 16:15:
   05.178839: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
86 172/196 [==========================>....] - ETA: 54s
    - loss: 1.3756 - accuracy: 0.44712021-10-13 16:15:
   19.869452: W tensorflow/core/lib/png/png_io.cc:88]
    PNG warning: iCCP: known incorrect sRGB profile
87 174/196 [==========================>....] - ETA: 49s
    - loss: 1.3741 - accuracy: 0.44762021-10-13 16:15:
```

```
 87  24.238660: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
 88  196/196 [==============================] - ETA: 0s
      - loss: 1.3706 - accuracy: 0.44662021-10-13 16:16:
     10.005906: W tensorflow/core/lib/png/png_io.cc:88]
     PNG warning: iCCP: known incorrect sRGB profile
 89  2021-10-13 16:16:10.337604: W tensorflow/core/lib/
     png/png_io.cc:88] PNG warning: iCCP: known incorrect
      sRGB profile
 90  2021-10-13 16:16:11.744180: W tensorflow/core/lib/
     png/png_io.cc:88] PNG warning: iCCP: known incorrect
      sRGB profile
 91  2021-10-13 16:16:26.343832: W tensorflow/core/lib/
     png/png_io.cc:88] PNG warning: iCCP: known incorrect
      sRGB profile
 92  2021-10-13 16:16:26.869813: W tensorflow/core/lib/
     png/png_io.cc:88] PNG warning: iCCP: known incorrect
      sRGB profile
 93  2021-10-13 16:16:34.756974: W tensorflow/core/lib/
     png/png_io.cc:88] PNG warning: iCCP: known incorrect
      sRGB profile
 94  196/196 [==============================] - 474s 2s/
     step - loss: 1.3706 - accuracy: 0.4466 - val_loss: 1
     .3099 - val_accuracy: 0.4795
 95  Epoch 2/30
 96  196/196 [==============================] - 430s 2s/
     step - loss: 1.3391 - accuracy: 0.4540 - val_loss: 1
     .3318 - val_accuracy: 0.4469
 97  Epoch 3/30
 98  196/196 [==============================] - 438s 2s/
     step - loss: 1.3160 - accuracy: 0.4537 - val_loss: 1
     .3296 - val_accuracy: 0.4475
 99  Epoch 4/30
100  196/196 [==============================] - 417s 2s/
     step - loss: 1.3038 - accuracy: 0.4654 - val_loss: 1
     .2981 - val_accuracy: 0.4731
101  Epoch 5/30
102  196/196 [==============================] - 411s 2s/
     step - loss: 1.2928 - accuracy: 0.4713 - val_loss: 1
     .2728 - val_accuracy: 0.4968
103  Epoch 6/30
```

```
104 196/196 [==============================] - 410s 2s/
    step - loss: 1.2844 - accuracy: 0.4706 - val_loss: 1
    .3037 - val_accuracy: 0.4776
105 Epoch 7/30
106 196/196 [==============================] - 407s 2s/
    step - loss: 1.2805 - accuracy: 0.4777 - val_loss: 1
    .2608 - val_accuracy: 0.4949
107 Epoch 8/30
108 196/196 [==============================] - 407s 2s/
    step - loss: 1.2726 - accuracy: 0.4785 - val_loss: 1
    .2599 - val_accuracy: 0.4974
109 Epoch 9/30
110 196/196 [==============================] - 413s 2s/
    step - loss: 1.2720 - accuracy: 0.4798 - val_loss: 1
    .2696 - val_accuracy: 0.4981
111 Epoch 10/30
112 196/196 [==============================] - 414s 2s/
    step - loss: 1.2663 - accuracy: 0.4825 - val_loss: 1
    .2619 - val_accuracy: 0.4994
113 Epoch 11/30
114 196/196 [==============================] - 416s 2s/
    step - loss: 1.2616 - accuracy: 0.4812 - val_loss: 1
    .2670 - val_accuracy: 0.4942
115 Epoch 12/30
116 196/196 [==============================] - 408s 2s/
    step - loss: 1.2566 - accuracy: 0.4846 - val_loss: 1
    .2696 - val_accuracy: 0.4782
117 Epoch 13/30
118 196/196 [==============================] - 408s 2s/
    step - loss: 1.2523 - accuracy: 0.4924 - val_loss: 1
    .2326 - val_accuracy: 0.5154
119 Epoch 14/30
120 196/196 [==============================] - 406s 2s/
    step - loss: 1.2435 - accuracy: 0.4927 - val_loss: 1
    .2341 - val_accuracy: 0.5128
121 Epoch 15/30
122 196/196 [==============================] - 416s 2s/
    step - loss: 1.2360 - accuracy: 0.4996 - val_loss: 1
    .2194 - val_accuracy: 0.5224
123 Epoch 16/30
124 196/196 [==============================] - 413s 2s/
```

```
124 step - loss: 1.2360 - accuracy: 0.5025 - val_loss: 1
    .2324 - val_accuracy: 0.5154
125 Epoch 17/30
126 196/196 [==============================] - 411s 2s/
    step - loss: 1.2290 - accuracy: 0.5054 - val_loss: 1
    .2165 - val_accuracy: 0.5134
127 Epoch 18/30
128 196/196 [==============================] - 409s 2s/
    step - loss: 1.2328 - accuracy: 0.4982 - val_loss: 1
    .2183 - val_accuracy: 0.5160
129 Epoch 19/30
130 196/196 [==============================] - 415s 2s/
    step - loss: 1.2148 - accuracy: 0.5084 - val_loss: 1
    .2027 - val_accuracy: 0.5262
131 Epoch 20/30
132 196/196 [==============================] - 415s 2s/
    step - loss: 1.2181 - accuracy: 0.5086 - val_loss: 1
    .1975 - val_accuracy: 0.5301
133 Epoch 21/30
134 196/196 [==============================] - 409s 2s/
    step - loss: 1.2093 - accuracy: 0.5090 - val_loss: 1
    .2015 - val_accuracy: 0.5346
135 Epoch 22/30
136 196/196 [==============================] - 409s 2s/
    step - loss: 1.2024 - accuracy: 0.5158 - val_loss: 1
    .2097 - val_accuracy: 0.5154
137 Epoch 23/30
138 196/196 [==============================] - 403s 2s/
    step - loss: 1.1948 - accuracy: 0.5234 - val_loss: 1
    .2283 - val_accuracy: 0.5000
139 Epoch 24/30
140 196/196 [==============================] - 414s 2s/
    step - loss: 1.2007 - accuracy: 0.5138 - val_loss: 1
    .1998 - val_accuracy: 0.5275
141 Epoch 25/30
142 196/196 [==============================] - 404s 2s/
    step - loss: 1.1869 - accuracy: 0.5206 - val_loss: 1
    .2065 - val_accuracy: 0.5096
143 Epoch 26/30
144 196/196 [==============================] - 408s 2s/
    step - loss: 1.1847 - accuracy: 0.5223 - val_loss: 1
```

```
144 .2024 - val_accuracy: 0.5192
145 Epoch 27/30
146 196/196 [==============================] - 403s 2s/
    step - loss: 1.1753 - accuracy: 0.5273 - val_loss: 1
    .2089 - val_accuracy: 0.5173
147 Epoch 28/30
148 196/196 [==============================] - 403s 2s/
    step - loss: 1.1701 - accuracy: 0.5271 - val_loss: 1
    .2126 - val_accuracy: 0.5122
149 Epoch 29/30
150 196/196 [==============================] - 408s 2s/
    step - loss: 1.1689 - accuracy: 0.5282 - val_loss: 1
    .2213 - val_accuracy: 0.5179
151 Epoch 30/30
152 196/196 [==============================] - 407s 2s/
    step - loss: 1.1611 - accuracy: 0.5330 - val_loss: 1
    .2201 - val_accuracy: 0.5064
153 2021-10-13 19:35:34.733982: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
154  1/27 [>.............................] - ETA: 52s -
    loss: 0.9045 - accuracy: 0.68752021-10-13 19:35:35.
    985496: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
155  8/27 [=======>......................] - ETA: 12s -
    loss: 1.2017 - accuracy: 0.52732021-10-13 19:35:40.
    467598: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
156 2021-10-13 19:35:40.534300: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: known incorrect
     sRGB profile
157 2021-10-13 19:35:40.588768: 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 2021-10-13 19:35:40.589166: 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 2021-10-13 19:35:40.589542: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
```

159 Profile': 'bkpt': ICC profile tag start not a
    multiple of 4
160 2021-10-13 19:35:40.589918: 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 2021-10-13 19:35:40.590289: 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 2021-10-13 19:35:40.590667: 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 2021-10-13 19:35:40.591039: 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 2021-10-13 19:35:40.591406: 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 2021-10-13 19:35:40.591786: 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 2021-10-13 19:35:40.592154: 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 2021-10-13 19:35:40.592530: 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 2021-10-13 19:35:40.592909: 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 2021-10-13 19:35:40.593274: W tensorflow/core/lib/
    png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
    Profile': 'tech': ICC profile tag start not a

```
169 multiple of 4
170 2021-10-13 19:35:40.593648: 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 2021-10-13 19:35:40.594019: 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 2021-10-13 19:35:40.594384: 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: 1.2674 - accuracy: 0.50212021-10-13 19:35:45.
    201031: W tensorflow/core/lib/png/png_io.cc:88] PNG
    warning: iCCP: known incorrect sRGB profile
174 27/27 [=============================] - 18s 617ms/
    step - loss: 1.2660 - accuracy: 0.5081
175 Accuracy: 0.5081018805503845
176 Loss: 1.2659550905227661
177 end
178
179 Process finished with exit code 0
180
```