- 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 2021-10-08 08:18:26.623368: 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 2021-10-08 08:18:26.623811: 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.
- 5 2.6.0
- 6 Found 7811 files belonging to 6 classes.
- 7 Using 6249 files for training.
- 8 2021-10-08 08:18:43.608037: W tensorflow/ stream\_executor/platform/default/dso\_loader.cc:64] Could not load dynamic library 'nvcuda.dll'; dlerror : nvcuda.dll not found
- 9 2021-10-08 08:18:43.608445: W tensorflow/ stream\_executor/cuda/cuda\_driver.cc:269] failed call to cuInit: UNKNOWN ERROR (303)
- 10 2021-10-08 08:18:43.625163: I tensorflow/ stream\_executor/cuda/cuda\_diagnostics.cc:169] retrieving CUDA diagnostic information for host: D26265VWTB0E
- 11 2021-10-08 08:18:43.625840: I tensorflow/ stream\_executor/cuda/cuda\_diagnostics.cc:176] hostname: D26265VWTB0E
- 12 2021-10-08 08:18:43.626373: 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

| 14<br>15<br>16<br>17 | To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags. Found 7811 files belonging to 6 classes. Using 1562 files for validation. Found 864 files belonging to 6 classes. Model: "sequential" |                      |
|----------------------|---|----------------------|
|                      | Layer (type) Param #  | Output Shape         |
|                      | rescaling (Rescaling)   |                      |
| 22                   | ) 0   |                      |
|                      | random_flip (RandomFlip) ) 0  |                      |
| 25                   | random_rotation (RandomRotat ) 0  |                      |
|                      | conv2d (Conv2D) ) 1792  | (None, 254, 254, 64  |
| 29                   | max_pooling2d (MaxPooling2D) ) 0  |                      |
| 31                   | conv2d_1 (Conv2D)<br>) 73856  | (None, 125, 125, 128 |
| 33                   |   |                      |
|                      |   | (None, 60, 60, 256   |
|                      | 0011V2U_2 (0011V2D)   | (110110, 00, 00, 200 |

```
295168
35 )
36 __
37 max_pooling2d_2 (MaxPooling2 (None, 30, 30, 256
38 _____
                   (None, 230400
39 flatten (Flatten)
40 _____
41 dense (Dense)
                         (None, 256
            58982656
42 _____
43 dense_1 (Dense)
                         (None, 256
          65792
44 _____
45 dense_2 (Dense)
                         (None, 6
                1542
47 Total params: 59,420,806
48 Trainable params: 59,420,806
49 Non-trainable params: 0
50 _____
51 Epoch 1/20
52 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?"
    '"`sparse_categorical_crossentropy` received `
53
  from_logits=True`, but '
54 2021-10-08 08:18:46.699712: I tensorflow/compiler/
  mlir/mlir_graph_optimization_pass.cc:185] None of the
   MLIR Optimization Passes are enabled (registered 2)
   2/196 [.....] - ETA: 16:19
55
```

```
- loss: 9.3784 - accuracy: 0.46882021-10-08 08:18:58
  .937694: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
56
    4/196 [...... - ETA: 14:50
   - loss: 7.8250 - accuracy: 0.28912021-10-08 08:19:08
  .002989: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
57
    5/196 [.....] - ETA: 14:33
   - loss: 6.5753 - accuracy: 0.28752021-10-08 08:19:12
  .450314: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
58
   13/196 [>.....] - ETA: 13:30
   - loss: 3.4797 - accuracy: 0.34382021-10-08 08:19:47
  .282936: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
59
  45/196 [====>..... - ETA: 11:18
   - loss: 1.9997 - accuracy: 0.41872021-10-08 08:22:11
  .791526: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
  46/196 [=====>.....] - ETA: 11:14
60
   - loss: 1.9882 - accuracy: 0.41922021-10-08 08:22:16
  .247570: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
61 55/196 [======>.....] - ETA: 10:38
   - loss: 1.8840 - accuracy: 0.42842021-10-08 08:22:58
   .498101: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
62 58/196 [======>.....] - ETA: 10:24
   - loss: 1.8546 - accuracy: 0.42782021-10-08 08:23:11
   .879729: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
63
  59/196 [=======>....] - ETA: 10:20
   - loss: 1.8475 - accuracy: 0.42742021-10-08 08:23:16
  .543413: W tensorflow/core/lib/png/png_io.cc:88] PNG
  warning: iCCP: known incorrect sRGB profile
  64/196 [=======>....] - ETA: 9:55
64
   - loss: 1.8107 - accuracy: 0.4282 2021-10-08 08:23:
  38.113276: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
  72/196 [=======>.....] - ETA: 9:17
65
   - loss: 1.7600 - accuracy: 0.42582021-10-08 08:24:13
```

```
65 .058632: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
66
   75/196 [=======>....] - ETA: 9:03
   - loss: 1.7423 - accuracy: 0.42752021-10-08 08:24:
  26.234829: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
   81/196 [========>....] - ETA: 8:34
   - loss: 1.7141 - accuracy: 0.42822021-10-08 08:24:
  51.938026: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
   86/196 [========>.....] - ETA: 8:11
   - loss: 1.6905 - accuracy: 0.42662021-10-08 08:25:
  14.247282: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
  91/196 [=========>....] - ETA: 7:49
   - loss: 1.6746 - accuracy: 0.42692021-10-08 08:25:
  36.180214: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
  95/196 [=========>.....] - ETA: 7:30
70
   - loss: 1.6614 - accuracy: 0.42892021-10-08 08:25:
  53.905544: W tensorflow/core/lib/png/png io.cc:881
  PNG warning: iCCP: known incorrect sRGB profile
71 108/196 [==========>.....] - ETA: 6:32
   - loss: 1.6242 - accuracy: 0.43872021-10-08 08:26:
  50.757139: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
72 117/196 [==========>.....] - ETA: 5:51
   - loss: 1.6045 - accuracy: 0.43942021-10-08 08:27:
  29.475262: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
73 119/196 [===========>....] - ETA: 5:42
   - loss: 1.6020 - accuracy: 0.43832021-10-08 08:27:
  38.097883: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
74 121/196 [===========>....] - ETA: 5:33
   - loss: 1.5958 - accuracy: 0.43982021-10-08 08:27:
  47.124675: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
75 2021-10-08 08:27:47.711614: W tensorflow/core/lib/
  png/png_io.cc:88] PNG warning: iCCP: known incorrect
   sRGB profile
```

```
76 126/196 [============>....] - ETA: 5:10
   - loss: 1.5831 - accuracy: 0.44222021-10-08 08:28:
  09.102570: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
77 129/196 [============>....] - ETA: 4:57
   - loss: 1.5785 - accuracy: 0.44332021-10-08 08:28:
  22.059333: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
78 130/196 [===========>....] - ETA: 4:52
   - loss: 1.5803 - accuracy: 0.44232021-10-08 08:28:
  26.561462: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
79 133/196 [=============>.....] - ETA: 4:39
   - loss: 1.5730 - accuracy: 0.44382021-10-08 08:28:
  39.614615: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
- loss: 1.5696 - accuracy: 0.44422021-10-08 08:28:
  48.011855: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
81 2021-10-08 08:28:48.036043: W tensorflow/core/lib/
  pnq/pnq_io.cc:88] PNG warning: iCCP: known incorrect
   sRGB profile
- loss: 1.5400 - accuracy: 0.44812021-10-08 08:30:
  12.178423: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
- loss: 1.5301 - accuracy: 0.44552021-10-08 08:30:
  59.316207: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
- loss: 1.5205 - accuracy: 0.44832021-10-08 08:31:
  25.709148: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
- loss: 1.5181 - accuracy: 0.44832021-10-08 08:31:
  34.206960: W tensorflow/core/lib/png/png_io.cc:88]
  PNG warning: iCCP: known incorrect sRGB profile
86 196/196 [============ ] - ETA: Os
   - loss: 1.4977 - accuracy: 0.44762021-10-08 08:33:
```

```
86 10.846892: W tensorflow/core/lib/png/png_io.cc:88]
   PNG warning: iCCP: known incorrect sRGB profile
87 2021-10-08 08:33:11.019276: W tensorflow/core/lib/
   pnq/pnq_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
88 2021-10-08 08:33:13.286808: W tensorflow/core/lib/
   pnq/pnq_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
89 2021-10-08 08:33:38.136986: W tensorflow/core/lib/
   png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
90 2021-10-08 08:33:39.180768: W tensorflow/core/lib/
   pnq/pnq_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
91 2021-10-08 08:33:51.766059: W tensorflow/core/lib/
   png/png_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
92 196/196 [============= ] - 921s 5s/
   step - loss: 1.4977 - accuracy: 0.4476 - val_loss: 1
   .3071 - val_accuracy: 0.4795
93 Epoch 2/20
94 196/196 [============== ] - 947s 5s/
   step - loss: 1.3308 - accuracy: 0.4542 - val_loss: 1
   .3036 - val_accuracy: 0.4789
95 Epoch 3/20
96 196/196 [============== ] - 956s 5s/
   step - loss: 1.3248 - accuracy: 0.4534 - val_loss: 1
   .2806 - val_accuracy: 0.4974
97 Epoch 4/20
step - loss: 1.3138 - accuracy: 0.4654 - val_loss: 1
   .3099 - val_accuracy: 0.4654
99 Epoch 5/20
step - loss: 1.3036 - accuracy: 0.4676 - val_loss: 1
   .2763 - val_accuracy: 0.4891
101 Epoch 6/20
step - loss: 1.2925 - accuracy: 0.4689 - val_loss: 1
   .2647 - val_accuracy: 0.5006
103 Epoch 7/20
```

```
104 196/196 [============== ] - 927s 5s/
  step - loss: 1.2870 - accuracy: 0.4721 - val_loss: 1
  .2624 - val_accuracy: 0.5000
105 Epoch 8/20
step - loss: 1.2836 - accuracy: 0.4748 - val_loss: 1
  .2536 - val_accuracy: 0.4962
107 Epoch 9/20
step - loss: 1.2736 - accuracy: 0.4801 - val_loss: 1
  .2773 - val_accuracy: 0.4898
109 Epoch 10/20
step - loss: 1.2757 - accuracy: 0.4764 - val_loss: 1
  .2691 - val_accuracy: 0.4962
111 Epoch 11/20
step - loss: 1.2675 - accuracy: 0.4860 - val_loss: 1
  .2471 - val_accuracy: 0.4994
113 Epoch 12/20
step - loss: 1.2641 - accuracy: 0.4830 - val_loss: 1
  .2341 - val accuracy: 0.5141
115 Epoch 13/20
116 196/196 [============= ] - 844s 4s/
  step - loss: 1.2613 - accuracy: 0.4892 - val_loss: 1
  .2500 - val_accuracy: 0.4994
117 Epoch 14/20
step - loss: 1.2610 - accuracy: 0.4874 - val_loss: 1
  .2524 - val_accuracy: 0.4968
119 Epoch 15/20
step - loss: 1.2521 - accuracy: 0.4855 - val_loss: 1
  .2286 - val_accuracy: 0.5045
121 Epoch 16/20
step - loss: 1.2536 - accuracy: 0.4854 - val_loss: 1
  .2381 - val_accuracy: 0.5058
123 Epoch 17/20
```

```
124 step - loss: 1.2441 - accuracy: 0.4903 - val_loss: 1
   .2489 - val_accuracy: 0.5038
125 Epoch 18/20
step - loss: 1.2444 - accuracy: 0.4938 - val_loss: 1
   .2360 - val_accuracy: 0.5006
127 Epoch 19/20
step - loss: 1.2389 - accuracy: 0.4908 - val_loss: 1
   .2233 - val_accuracy: 0.5045
129 Epoch 20/20
step - loss: 1.2332 - accuracy: 0.4986 - val_loss: 1
   .2189 - val_accuracy: 0.5109
131 2021-10-08 13:27:49.829079: W tensorflow/core/lib/
   pnq/pnq_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
132 1/27 [>.....] - ETA: 1:09
    - loss: 0.9732 - accuracy: 0.68752021-10-08 13:27:
   51.403941: W tensorflow/core/lib/png/png_io.cc:88]
   PNG warning: iCCP: known incorrect sRGB profile
   7/27 [=====>.....] - ETA: 24s -
   loss: 1.2240 - accuracy: 0.55362021-10-08 13:27:59.
   725385: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
134 2021-10-08 13:27:59.805677: W tensorflow/core/lib/
   pnq/pnq_io.cc:88] PNG warning: iCCP: known incorrect
    sRGB profile
135 2021-10-08 13:27:59.842170: W tensorflow/core/lib/
   pnq/pnq_io.cc:88] PNG warning: iCCP: profile 'ICC
   Profile': 'desc': ICC profile tag start not a
   multiple of 4
136 2021-10-08 13:27:59.842705: 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
137 2021-10-08 13:27:59.843084: 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
138 2021-10-08 13:27:59.843461: W tensorflow/core/lib/
```

- 138 png/png\_io.cc:88] PNG warning: iCCP: profile 'ICC Profile': 'rXYZ': ICC profile tag start not a multiple of 4
- 139 2021-10-08 13:27:59.843836: 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
- 140 2021-10-08 13:27:59.844203: 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
- 141 2021-10-08 13:27:59.844582: 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
- 142 2021-10-08 13:27:59.845049: 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
- 143 2021-10-08 13:27:59.845553: 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
- 144 2021-10-08 13:27:59.845925: 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
- 145 2021-10-08 13:27:59.846297: 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
- 146 2021-10-08 13:27:59.846668: 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
- 147 2021-10-08 13:27:59.847038: 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
- 148 2021-10-08 13:27:59.847407: W tensorflow/core/lib/png/png\_io.cc:88] PNG warning: iCCP: profile 'ICC

```
148 Profile': 'rTRC': ICC profile tag start not a
   multiple of 4
149 2021-10-08 13:27:59.847783: W tensorflow/core/lib/
   png/png_io.cc:88] PNG warning: iCCP: profile 'ICC
   Profile': 'qTRC': ICC profile tag start not a
   multiple of 4
150 2021-10-08 13:27:59.873031: 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
151 15/27 [=========>.....] - ETA: 14s -
   loss: 1.2740 - accuracy: 0.51672021-10-08 13:28:08.
   129416: W tensorflow/core/lib/png/png_io.cc:88] PNG
   warning: iCCP: known incorrect sRGB profile
- loss: 1.2780 - accuracy: 0.5093
153 Accuracy: 0.5092592835426331
154 Loss: 1.2780275344848633
155 end
156
157 Process finished with exit code 0
158
```