Model: "model\_1"

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Layer (type) Output Shape Param # Connected to

==================================================================================================

input\_2 (InputLayer) [(None, 256, 256, 3 0 []

)]

conv2d\_58 (Conv2D) (None, 256, 256, 8) 216 ['input\_2[0][0]']

batch\_normalization\_86 (BatchN (None, 256, 256, 8) 24 ['conv2d\_58[0][0]']

ormalization)

activation\_57 (Activation) (None, 256, 256, 8) 0 ['batch\_normalization\_86[0][0]']

conv2d\_59 (Conv2D) (None, 256, 256, 17 1224 ['activation\_57[0][0]']

)

batch\_normalization\_87 (BatchN (None, 256, 256, 17 51 ['conv2d\_59[0][0]']

ormalization) )

activation\_58 (Activation) (None, 256, 256, 17 0 ['batch\_normalization\_87[0][0]']

)

conv2d\_60 (Conv2D) (None, 256, 256, 26 3978 ['activation\_58[0][0]']

)

batch\_normalization\_88 (BatchN (None, 256, 256, 26 78 ['conv2d\_60[0][0]']

ormalization) )

activation\_59 (Activation) (None, 256, 256, 26 0 ['batch\_normalization\_88[0][0]']

)

conv2d\_57 (Conv2D) (None, 256, 256, 51 153 ['input\_2[0][0]']

)

concatenate\_13 (Concatenate) (None, 256, 256, 51 0 ['activation\_57[0][0]',

) 'activation\_58[0][0]',

'activation\_59[0][0]']

batch\_normalization\_85 (BatchN (None, 256, 256, 51 153 ['conv2d\_57[0][0]']

ormalization) )

batch\_normalization\_89 (BatchN (None, 256, 256, 51 204 ['concatenate\_13[0][0]']

ormalization) )

add\_19 (Add) (None, 256, 256, 51 0 ['batch\_normalization\_85[0][0]',

) 'batch\_normalization\_89[0][0]']

activation\_60 (Activation) (None, 256, 256, 51 0 ['add\_19[0][0]']

)

batch\_normalization\_90 (BatchN (None, 256, 256, 51 204 ['activation\_60[0][0]']

ormalization) )

max\_pooling2d\_4 (MaxPooling2D) (None, 128, 128, 51 0 ['batch\_normalization\_90[0][0]']

)

conv2d\_70 (Conv2D) (None, 128, 128, 17 7803 ['max\_pooling2d\_4[0][0]']

)

batch\_normalization\_104 (Batch (None, 128, 128, 17 51 ['conv2d\_70[0][0]']

Normalization) )

activation\_69 (Activation) (None, 128, 128, 17 0 ['batch\_normalization\_104[0][0]']

)

conv2d\_71 (Conv2D) (None, 128, 128, 35 5355 ['activation\_69[0][0]']

)

batch\_normalization\_105 (Batch (None, 128, 128, 35 105 ['conv2d\_71[0][0]']

Normalization) )

activation\_70 (Activation) (None, 128, 128, 35 0 ['batch\_normalization\_105[0][0]']

)

conv2d\_72 (Conv2D) (None, 128, 128, 53 16695 ['activation\_70[0][0]']

)

batch\_normalization\_106 (Batch (None, 128, 128, 53 159 ['conv2d\_72[0][0]']

Normalization) )

activation\_71 (Activation) (None, 128, 128, 53 0 ['batch\_normalization\_106[0][0]']

)

conv2d\_69 (Conv2D) (None, 128, 128, 10 5355 ['max\_pooling2d\_4[0][0]']

5)

concatenate\_14 (Concatenate) (None, 128, 128, 10 0 ['activation\_69[0][0]',

5) 'activation\_70[0][0]',

'activation\_71[0][0]']

batch\_normalization\_103 (Batch (None, 128, 128, 10 315 ['conv2d\_69[0][0]']

Normalization) 5)

batch\_normalization\_107 (Batch (None, 128, 128, 10 420 ['concatenate\_14[0][0]']

Normalization) 5)

add\_24 (Add) (None, 128, 128, 10 0 ['batch\_normalization\_103[0][0]',

5) 'batch\_normalization\_107[0][0]']

activation\_72 (Activation) (None, 128, 128, 10 0 ['add\_24[0][0]']

5)

batch\_normalization\_108 (Batch (None, 128, 128, 10 420 ['activation\_72[0][0]']

Normalization) 5)

max\_pooling2d\_5 (MaxPooling2D) (None, 64, 64, 105) 0 ['batch\_normalization\_108[0][0]']

conv2d\_80 (Conv2D) (None, 64, 64, 35) 33075 ['max\_pooling2d\_5[0][0]']

batch\_normalization\_119 (Batch (None, 64, 64, 35) 105 ['conv2d\_80[0][0]']

Normalization)

activation\_79 (Activation) (None, 64, 64, 35) 0 ['batch\_normalization\_119[0][0]']

conv2d\_81 (Conv2D) (None, 64, 64, 71) 22365 ['activation\_79[0][0]']

batch\_normalization\_120 (Batch (None, 64, 64, 71) 213 ['conv2d\_81[0][0]']

Normalization)

activation\_80 (Activation) (None, 64, 64, 71) 0 ['batch\_normalization\_120[0][0]']

conv2d\_82 (Conv2D) (None, 64, 64, 106) 67734 ['activation\_80[0][0]']

batch\_normalization\_121 (Batch (None, 64, 64, 106) 318 ['conv2d\_82[0][0]']

Normalization)

activation\_81 (Activation) (None, 64, 64, 106) 0 ['batch\_normalization\_121[0][0]']

conv2d\_79 (Conv2D) (None, 64, 64, 212) 22260 ['max\_pooling2d\_5[0][0]']

concatenate\_15 (Concatenate) (None, 64, 64, 212) 0 ['activation\_79[0][0]',

'activation\_80[0][0]',

'activation\_81[0][0]']

batch\_normalization\_118 (Batch (None, 64, 64, 212) 636 ['conv2d\_79[0][0]']

Normalization)

batch\_normalization\_122 (Batch (None, 64, 64, 212) 848 ['concatenate\_15[0][0]']

Normalization)

add\_28 (Add) (None, 64, 64, 212) 0 ['batch\_normalization\_118[0][0]',

'batch\_normalization\_122[0][0]']

activation\_82 (Activation) (None, 64, 64, 212) 0 ['add\_28[0][0]']

batch\_normalization\_123 (Batch (None, 64, 64, 212) 848 ['activation\_82[0][0]']

Normalization)

max\_pooling2d\_6 (MaxPooling2D) (None, 32, 32, 212) 0 ['batch\_normalization\_123[0][0]']

conv2d\_88 (Conv2D) (None, 32, 32, 71) 135468 ['max\_pooling2d\_6[0][0]']

batch\_normalization\_131 (Batch (None, 32, 32, 71) 213 ['conv2d\_88[0][0]']

Normalization)

activation\_87 (Activation) (None, 32, 32, 71) 0 ['batch\_normalization\_131[0][0]']

conv2d\_89 (Conv2D) (None, 32, 32, 142) 90738 ['activation\_87[0][0]']

batch\_normalization\_132 (Batch (None, 32, 32, 142) 426 ['conv2d\_89[0][0]']

Normalization)

activation\_88 (Activation) (None, 32, 32, 142) 0 ['batch\_normalization\_132[0][0]']

conv2d\_90 (Conv2D) (None, 32, 32, 213) 272214 ['activation\_88[0][0]']

batch\_normalization\_133 (Batch (None, 32, 32, 213) 639 ['conv2d\_90[0][0]']

Normalization)

activation\_89 (Activation) (None, 32, 32, 213) 0 ['batch\_normalization\_133[0][0]']

conv2d\_87 (Conv2D) (None, 32, 32, 426) 90312 ['max\_pooling2d\_6[0][0]']

concatenate\_16 (Concatenate) (None, 32, 32, 426) 0 ['activation\_87[0][0]',

'activation\_88[0][0]',

'activation\_89[0][0]']

batch\_normalization\_130 (Batch (None, 32, 32, 426) 1278 ['conv2d\_87[0][0]']

Normalization)

batch\_normalization\_134 (Batch (None, 32, 32, 426) 1704 ['concatenate\_16[0][0]']

Normalization)

add\_31 (Add) (None, 32, 32, 426) 0 ['batch\_normalization\_130[0][0]',

'batch\_normalization\_134[0][0]']

activation\_90 (Activation) (None, 32, 32, 426) 0 ['add\_31[0][0]']

batch\_normalization\_135 (Batch (None, 32, 32, 426) 1704 ['activation\_90[0][0]']

Normalization)

max\_pooling2d\_7 (MaxPooling2D) (None, 16, 16, 426) 0 ['batch\_normalization\_135[0][0]']

conv2d\_94 (Conv2D) (None, 16, 16, 142) 544428 ['max\_pooling2d\_7[0][0]']

batch\_normalization\_140 (Batch (None, 16, 16, 142) 426 ['conv2d\_94[0][0]']

Normalization)

activation\_93 (Activation) (None, 16, 16, 142) 0 ['batch\_normalization\_140[0][0]']

conv2d\_95 (Conv2D) (None, 16, 16, 284) 362952 ['activation\_93[0][0]']

batch\_normalization\_141 (Batch (None, 16, 16, 284) 852 ['conv2d\_95[0][0]']

Normalization)

activation\_94 (Activation) (None, 16, 16, 284) 0 ['batch\_normalization\_141[0][0]']

conv2d\_96 (Conv2D) (None, 16, 16, 427) 1091412 ['activation\_94[0][0]']

batch\_normalization\_142 (Batch (None, 16, 16, 427) 1281 ['conv2d\_96[0][0]']

Normalization)

activation\_95 (Activation) (None, 16, 16, 427) 0 ['batch\_normalization\_142[0][0]']

conv2d\_93 (Conv2D) (None, 16, 16, 853) 363378 ['max\_pooling2d\_7[0][0]']

concatenate\_17 (Concatenate) (None, 16, 16, 853) 0 ['activation\_93[0][0]',

'activation\_94[0][0]',

'activation\_95[0][0]']

conv2d\_92 (Conv2D) (None, 32, 32, 512) 1963008 ['batch\_normalization\_135[0][0]']

batch\_normalization\_139 (Batch (None, 16, 16, 853) 2559 ['conv2d\_93[0][0]']

Normalization)

batch\_normalization\_143 (Batch (None, 16, 16, 853) 3412 ['concatenate\_17[0][0]']

Normalization)

conv2d\_91 (Conv2D) (None, 32, 32, 512) 218112 ['batch\_normalization\_135[0][0]']

batch\_normalization\_137 (Batch (None, 32, 32, 512) 1536 ['conv2d\_92[0][0]']

Normalization)

add\_33 (Add) (None, 16, 16, 853) 0 ['batch\_normalization\_139[0][0]',

'batch\_normalization\_143[0][0]']

batch\_normalization\_136 (Batch (None, 32, 32, 512) 1536 ['conv2d\_91[0][0]']

Normalization)

activation\_91 (Activation) (None, 32, 32, 512) 0 ['batch\_normalization\_137[0][0]']

activation\_96 (Activation) (None, 16, 16, 853) 0 ['add\_33[0][0]']

add\_32 (Add) (None, 32, 32, 512) 0 ['batch\_normalization\_136[0][0]',

'activation\_91[0][0]']

batch\_normalization\_144 (Batch (None, 16, 16, 853) 3412 ['activation\_96[0][0]']

Normalization)

activation\_92 (Activation) (None, 32, 32, 512) 0 ['add\_32[0][0]']

conv2d\_transpose\_4 (Conv2DTran (None, 32, 32, 256) 873728 ['batch\_normalization\_144[0][0]']

spose)

batch\_normalization\_138 (Batch (None, 32, 32, 512) 2048 ['activation\_92[0][0]']

Normalization)

concatenate\_18 (Concatenate) (None, 32, 32, 768) 0 ['conv2d\_transpose\_4[0][0]',

'batch\_normalization\_138[0][0]']

conv2d\_98 (Conv2D) (None, 32, 32, 71) 490752 ['concatenate\_18[0][0]']

batch\_normalization\_146 (Batch (None, 32, 32, 71) 213 ['conv2d\_98[0][0]']

Normalization)

activation\_97 (Activation) (None, 32, 32, 71) 0 ['batch\_normalization\_146[0][0]']

conv2d\_99 (Conv2D) (None, 32, 32, 142) 90738 ['activation\_97[0][0]']

conv2d\_84 (Conv2D) (None, 64, 64, 256) 488448 ['batch\_normalization\_123[0][0]']

batch\_normalization\_147 (Batch (None, 32, 32, 142) 426 ['conv2d\_99[0][0]']

Normalization)

conv2d\_83 (Conv2D) (None, 64, 64, 256) 54272 ['batch\_normalization\_123[0][0]']

batch\_normalization\_125 (Batch (None, 64, 64, 256) 768 ['conv2d\_84[0][0]']

Normalization)

activation\_98 (Activation) (None, 32, 32, 142) 0 ['batch\_normalization\_147[0][0]']

batch\_normalization\_124 (Batch (None, 64, 64, 256) 768 ['conv2d\_83[0][0]']

Normalization)

activation\_83 (Activation) (None, 64, 64, 256) 0 ['batch\_normalization\_125[0][0]']

conv2d\_100 (Conv2D) (None, 32, 32, 213) 272214 ['activation\_98[0][0]']

add\_29 (Add) (None, 64, 64, 256) 0 ['batch\_normalization\_124[0][0]',

'activation\_83[0][0]']

batch\_normalization\_148 (Batch (None, 32, 32, 213) 639 ['conv2d\_100[0][0]']

Normalization)

activation\_84 (Activation) (None, 64, 64, 256) 0 ['add\_29[0][0]']

activation\_99 (Activation) (None, 32, 32, 213) 0 ['batch\_normalization\_148[0][0]']

batch\_normalization\_126 (Batch (None, 64, 64, 256) 1024 ['activation\_84[0][0]']

Normalization)

conv2d\_97 (Conv2D) (None, 32, 32, 426) 327168 ['concatenate\_18[0][0]']

concatenate\_19 (Concatenate) (None, 32, 32, 426) 0 ['activation\_97[0][0]',

'activation\_98[0][0]',

'activation\_99[0][0]']

conv2d\_86 (Conv2D) (None, 64, 64, 256) 589824 ['batch\_normalization\_126[0][0]']

batch\_normalization\_145 (Batch (None, 32, 32, 426) 1278 ['conv2d\_97[0][0]']

Normalization)

batch\_normalization\_149 (Batch (None, 32, 32, 426) 1704 ['concatenate\_19[0][0]']

Normalization)

conv2d\_85 (Conv2D) (None, 64, 64, 256) 65536 ['batch\_normalization\_126[0][0]']

batch\_normalization\_128 (Batch (None, 64, 64, 256) 768 ['conv2d\_86[0][0]']

Normalization)

add\_34 (Add) (None, 32, 32, 426) 0 ['batch\_normalization\_145[0][0]',

'batch\_normalization\_149[0][0]']

batch\_normalization\_127 (Batch (None, 64, 64, 256) 768 ['conv2d\_85[0][0]']

Normalization)

activation\_85 (Activation) (None, 64, 64, 256) 0 ['batch\_normalization\_128[0][0]']

activation\_100 (Activation) (None, 32, 32, 426) 0 ['add\_34[0][0]']

add\_30 (Add) (None, 64, 64, 256) 0 ['batch\_normalization\_127[0][0]',

'activation\_85[0][0]']

batch\_normalization\_150 (Batch (None, 32, 32, 426) 1704 ['activation\_100[0][0]']

Normalization)

activation\_86 (Activation) (None, 64, 64, 256) 0 ['add\_30[0][0]']

conv2d\_74 (Conv2D) (None, 128, 128, 12 120960 ['batch\_normalization\_108[0][0]']

8)

conv2d\_transpose\_5 (Conv2DTran (None, 64, 64, 128) 218240 ['batch\_normalization\_150[0][0]']

spose)

batch\_normalization\_129 (Batch (None, 64, 64, 256) 1024 ['activation\_86[0][0]']

Normalization)

conv2d\_73 (Conv2D) (None, 128, 128, 12 13440 ['batch\_normalization\_108[0][0]']

8)

batch\_normalization\_110 (Batch (None, 128, 128, 12 384 ['conv2d\_74[0][0]']

Normalization) 8)

concatenate\_20 (Concatenate) (None, 64, 64, 384) 0 ['conv2d\_transpose\_5[0][0]',

'batch\_normalization\_129[0][0]']

batch\_normalization\_109 (Batch (None, 128, 128, 12 384 ['conv2d\_73[0][0]']

Normalization) 8)

activation\_73 (Activation) (None, 128, 128, 12 0 ['batch\_normalization\_110[0][0]']

8)

conv2d\_102 (Conv2D) (None, 64, 64, 35) 120960 ['concatenate\_20[0][0]']

add\_25 (Add) (None, 128, 128, 12 0 ['batch\_normalization\_109[0][0]',

8) 'activation\_73[0][0]']

batch\_normalization\_152 (Batch (None, 64, 64, 35) 105 ['conv2d\_102[0][0]']

Normalization)

activation\_74 (Activation) (None, 128, 128, 12 0 ['add\_25[0][0]']

8)

activation\_101 (Activation) (None, 64, 64, 35) 0 ['batch\_normalization\_152[0][0]']

batch\_normalization\_111 (Batch (None, 128, 128, 12 512 ['activation\_74[0][0]']

Normalization) 8)

conv2d\_103 (Conv2D) (None, 64, 64, 71) 22365 ['activation\_101[0][0]']

conv2d\_76 (Conv2D) (None, 128, 128, 12 147456 ['batch\_normalization\_111[0][0]']

8)

batch\_normalization\_153 (Batch (None, 64, 64, 71) 213 ['conv2d\_103[0][0]']

Normalization)

conv2d\_75 (Conv2D) (None, 128, 128, 12 16384 ['batch\_normalization\_111[0][0]']

8)

batch\_normalization\_113 (Batch (None, 128, 128, 12 384 ['conv2d\_76[0][0]']

Normalization) 8)

activation\_102 (Activation) (None, 64, 64, 71) 0 ['batch\_normalization\_153[0][0]']

batch\_normalization\_112 (Batch (None, 128, 128, 12 384 ['conv2d\_75[0][0]']

Normalization) 8)

activation\_75 (Activation) (None, 128, 128, 12 0 ['batch\_normalization\_113[0][0]']

8)

conv2d\_104 (Conv2D) (None, 64, 64, 106) 67734 ['activation\_102[0][0]']

add\_26 (Add) (None, 128, 128, 12 0 ['batch\_normalization\_112[0][0]',

8) 'activation\_75[0][0]']

batch\_normalization\_154 (Batch (None, 64, 64, 106) 318 ['conv2d\_104[0][0]']

Normalization)

activation\_76 (Activation) (None, 128, 128, 12 0 ['add\_26[0][0]']

8)

conv2d\_62 (Conv2D) (None, 256, 256, 64 29376 ['batch\_normalization\_90[0][0]']

)

activation\_103 (Activation) (None, 64, 64, 106) 0 ['batch\_normalization\_154[0][0]']

batch\_normalization\_114 (Batch (None, 128, 128, 12 512 ['activation\_76[0][0]']

Normalization) 8)

conv2d\_61 (Conv2D) (None, 256, 256, 64 3264 ['batch\_normalization\_90[0][0]']

)

batch\_normalization\_92 (BatchN (None, 256, 256, 64 192 ['conv2d\_62[0][0]']

ormalization) )

conv2d\_101 (Conv2D) (None, 64, 64, 212) 81408 ['concatenate\_20[0][0]']

concatenate\_21 (Concatenate) (None, 64, 64, 212) 0 ['activation\_101[0][0]',

'activation\_102[0][0]',

'activation\_103[0][0]']

conv2d\_78 (Conv2D) (None, 128, 128, 12 147456 ['batch\_normalization\_114[0][0]']

8)

batch\_normalization\_91 (BatchN (None, 256, 256, 64 192 ['conv2d\_61[0][0]']

ormalization) )

activation\_61 (Activation) (None, 256, 256, 64 0 ['batch\_normalization\_92[0][0]']

)

batch\_normalization\_151 (Batch (None, 64, 64, 212) 636 ['conv2d\_101[0][0]']

Normalization)

batch\_normalization\_155 (Batch (None, 64, 64, 212) 848 ['concatenate\_21[0][0]']

Normalization)

conv2d\_77 (Conv2D) (None, 128, 128, 12 16384 ['batch\_normalization\_114[0][0]']

8)

batch\_normalization\_116 (Batch (None, 128, 128, 12 384 ['conv2d\_78[0][0]']

Normalization) 8)

add\_20 (Add) (None, 256, 256, 64 0 ['batch\_normalization\_91[0][0]',

) 'activation\_61[0][0]']

add\_35 (Add) (None, 64, 64, 212) 0 ['batch\_normalization\_151[0][0]',

'batch\_normalization\_155[0][0]']

batch\_normalization\_115 (Batch (None, 128, 128, 12 384 ['conv2d\_77[0][0]']

Normalization) 8)

activation\_77 (Activation) (None, 128, 128, 12 0 ['batch\_normalization\_116[0][0]']

8)

activation\_62 (Activation) (None, 256, 256, 64 0 ['add\_20[0][0]']

)

activation\_104 (Activation) (None, 64, 64, 212) 0 ['add\_35[0][0]']

add\_27 (Add) (None, 128, 128, 12 0 ['batch\_normalization\_115[0][0]',

8) 'activation\_77[0][0]']

batch\_normalization\_93 (BatchN (None, 256, 256, 64 256 ['activation\_62[0][0]']

ormalization) )

batch\_normalization\_156 (Batch (None, 64, 64, 212) 848 ['activation\_104[0][0]']

Normalization)

activation\_78 (Activation) (None, 128, 128, 12 0 ['add\_27[0][0]']

8)

conv2d\_64 (Conv2D) (None, 256, 256, 64 36864 ['batch\_normalization\_93[0][0]']

)

conv2d\_transpose\_6 (Conv2DTran (None, 128, 128, 64 54336 ['batch\_normalization\_156[0][0]']

spose) )

batch\_normalization\_117 (Batch (None, 128, 128, 12 512 ['activation\_78[0][0]']

Normalization) 8)

conv2d\_63 (Conv2D) (None, 256, 256, 64 4096 ['batch\_normalization\_93[0][0]']

)

batch\_normalization\_95 (BatchN (None, 256, 256, 64 192 ['conv2d\_64[0][0]']

ormalization) )

concatenate\_22 (Concatenate) (None, 128, 128, 19 0 ['conv2d\_transpose\_6[0][0]',

2) 'batch\_normalization\_117[0][0]']

batch\_normalization\_94 (BatchN (None, 256, 256, 64 192 ['conv2d\_63[0][0]']

ormalization) )

activation\_63 (Activation) (None, 256, 256, 64 0 ['batch\_normalization\_95[0][0]']

)

conv2d\_106 (Conv2D) (None, 128, 128, 17 29376 ['concatenate\_22[0][0]']

)

add\_21 (Add) (None, 256, 256, 64 0 ['batch\_normalization\_94[0][0]',

) 'activation\_63[0][0]']

batch\_normalization\_158 (Batch (None, 128, 128, 17 51 ['conv2d\_106[0][0]']

Normalization) )

activation\_64 (Activation) (None, 256, 256, 64 0 ['add\_21[0][0]']

)

activation\_105 (Activation) (None, 128, 128, 17 0 ['batch\_normalization\_158[0][0]']

)

batch\_normalization\_96 (BatchN (None, 256, 256, 64 256 ['activation\_64[0][0]']

ormalization) )

conv2d\_107 (Conv2D) (None, 128, 128, 35 5355 ['activation\_105[0][0]']

)

conv2d\_66 (Conv2D) (None, 256, 256, 64 36864 ['batch\_normalization\_96[0][0]']

)

batch\_normalization\_159 (Batch (None, 128, 128, 35 105 ['conv2d\_107[0][0]']

Normalization) )

conv2d\_65 (Conv2D) (None, 256, 256, 64 4096 ['batch\_normalization\_96[0][0]']

)

batch\_normalization\_98 (BatchN (None, 256, 256, 64 192 ['conv2d\_66[0][0]']

ormalization) )

activation\_106 (Activation) (None, 128, 128, 35 0 ['batch\_normalization\_159[0][0]']

)

batch\_normalization\_97 (BatchN (None, 256, 256, 64 192 ['conv2d\_65[0][0]']

ormalization) )

activation\_65 (Activation) (None, 256, 256, 64 0 ['batch\_normalization\_98[0][0]']

)

conv2d\_108 (Conv2D) (None, 128, 128, 53 16695 ['activation\_106[0][0]']

)

add\_22 (Add) (None, 256, 256, 64 0 ['batch\_normalization\_97[0][0]',

) 'activation\_65[0][0]']

batch\_normalization\_160 (Batch (None, 128, 128, 53 159 ['conv2d\_108[0][0]']

Normalization) )

activation\_66 (Activation) (None, 256, 256, 64 0 ['add\_22[0][0]']

)

activation\_107 (Activation) (None, 128, 128, 53 0 ['batch\_normalization\_160[0][0]']

)

batch\_normalization\_99 (BatchN (None, 256, 256, 64 256 ['activation\_66[0][0]']

ormalization) )

conv2d\_105 (Conv2D) (None, 128, 128, 10 20160 ['concatenate\_22[0][0]']

5)

concatenate\_23 (Concatenate) (None, 128, 128, 10 0 ['activation\_105[0][0]',

5) 'activation\_106[0][0]',

'activation\_107[0][0]']

conv2d\_68 (Conv2D) (None, 256, 256, 64 36864 ['batch\_normalization\_99[0][0]']

)

batch\_normalization\_157 (Batch (None, 128, 128, 10 315 ['conv2d\_105[0][0]']

Normalization) 5)

batch\_normalization\_161 (Batch (None, 128, 128, 10 420 ['concatenate\_23[0][0]']

Normalization) 5)

conv2d\_67 (Conv2D) (None, 256, 256, 64 4096 ['batch\_normalization\_99[0][0]']

)

batch\_normalization\_101 (Batch (None, 256, 256, 64 192 ['conv2d\_68[0][0]']

Normalization) )

add\_36 (Add) (None, 128, 128, 10 0 ['batch\_normalization\_157[0][0]',

5) 'batch\_normalization\_161[0][0]']

batch\_normalization\_100 (Batch (None, 256, 256, 64 192 ['conv2d\_67[0][0]']

Normalization) )

activation\_67 (Activation) (None, 256, 256, 64 0 ['batch\_normalization\_101[0][0]']

)

activation\_108 (Activation) (None, 128, 128, 10 0 ['add\_36[0][0]']

5)

add\_23 (Add) (None, 256, 256, 64 0 ['batch\_normalization\_100[0][0]',

) 'activation\_67[0][0]']

batch\_normalization\_162 (Batch (None, 128, 128, 10 420 ['activation\_108[0][0]']

Normalization) 5)

activation\_68 (Activation) (None, 256, 256, 64 0 ['add\_23[0][0]']

)

conv2d\_transpose\_7 (Conv2DTran (None, 256, 256, 32 13472 ['batch\_normalization\_162[0][0]']

spose) )

batch\_normalization\_102 (Batch (None, 256, 256, 64 256 ['activation\_68[0][0]']

Normalization) )

concatenate\_24 (Concatenate) (None, 256, 256, 96 0 ['conv2d\_transpose\_7[0][0]',

) 'batch\_normalization\_102[0][0]']

conv2d\_110 (Conv2D) (None, 256, 256, 8) 6912 ['concatenate\_24[0][0]']

batch\_normalization\_164 (Batch (None, 256, 256, 8) 24 ['conv2d\_110[0][0]']

Normalization)

activation\_109 (Activation) (None, 256, 256, 8) 0 ['batch\_normalization\_164[0][0]']

conv2d\_111 (Conv2D) (None, 256, 256, 17 1224 ['activation\_109[0][0]']

)

batch\_normalization\_165 (Batch (None, 256, 256, 17 51 ['conv2d\_111[0][0]']

Normalization) )

activation\_110 (Activation) (None, 256, 256, 17 0 ['batch\_normalization\_165[0][0]']

)

conv2d\_112 (Conv2D) (None, 256, 256, 26 3978 ['activation\_110[0][0]']

)

batch\_normalization\_166 (Batch (None, 256, 256, 26 78 ['conv2d\_112[0][0]']

Normalization) )

activation\_111 (Activation) (None, 256, 256, 26 0 ['batch\_normalization\_166[0][0]']

)

conv2d\_109 (Conv2D) (None, 256, 256, 51 4896 ['concatenate\_24[0][0]']

)

concatenate\_25 (Concatenate) (None, 256, 256, 51 0 ['activation\_109[0][0]',

) 'activation\_110[0][0]',

'activation\_111[0][0]']

batch\_normalization\_163 (Batch (None, 256, 256, 51 153 ['conv2d\_109[0][0]']

Normalization) )

batch\_normalization\_167 (Batch (None, 256, 256, 51 204 ['concatenate\_25[0][0]']

Normalization) )

add\_37 (Add) (None, 256, 256, 51 0 ['batch\_normalization\_163[0][0]',

) 'batch\_normalization\_167[0][0]']

activation\_112 (Activation) (None, 256, 256, 51 0 ['add\_37[0][0]']

)

batch\_normalization\_168 (Batch (None, 256, 256, 51 204 ['activation\_112[0][0]']

Normalization) )

conv2d\_113 (Conv2D) (None, 256, 256, 1) 51 ['batch\_normalization\_168[0][0]']

batch\_normalization\_169 (Batch (None, 256, 256, 1) 3 ['conv2d\_113[0][0]']

Normalization)

activation\_113 (Activation) (None, 256, 256, 1) 0 ['batch\_normalization\_169[0][0]']

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Total params: 9,906,494

Trainable params: 9,876,980

Non-trainable params: 29,514

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