Schematic of DenseNet-121 Encoder Architecture

Input Image
[224, 224, 3]

Initial Conv Stage

7x7 Conv, Stride 2
3x3 Max Pool, Stride 2

Output Shape:
[56, 56, 64]

Dense Block 1
(6 Layers, k=32)

Skip Connection 4

Output Shape:
[56, 56, 256]

Transition Layer 1
(1x1 Conv, 2x2 Avg Pool)

Output Shape:
[28, 28, 128]

Dense Block 2
(12 Layers, k=32)

Skip Connection 3

Output Shape:
[28, 28, 512]

Transition Layer 2
(1x1 Conv, 2x2 Avg Pool)

Output Shape:
[14, 14, 256]

Dense Block 3
(24 Layers, k=32)

Skip Connection 2

Output Shape:
[14, 14, 1024]

Transition Layer 3
(1x1 Conv, 2x2 Avg Pool)

Output Shape:
[7, 7, 512]

Dense Block 4
(16 Layers, k=32)

Skip Connection 1

Output Shape:
[7, 7, 1024]

Bottleneck Features
(Input to U-Net Decoder)