Baseline 32-layer CNN architecture

3x3 conv., 16 filters, BN, ReLU
Residual block: 2x 3x3 conv., 16 filters, BN, ReLU
Residual block: 2x 3x3 conv., 16 filters, BN, ReLU
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Residual block: 2x 3x3 conv., 16 filters, BN, ReLU
Residual block: 2x 3x3 conv., 16 filters, BN, ReLU
Residual block: 2x 3x3 conv. (first with stride 2), 32 filters, BN, ReLU
Residual block: 2x 3x3 conv., 32 filters, BN, ReLU
Residual block: 2x 3x3 conv., 32 filters, BN, ReLU
Residual block: 2x 3x3 conv., 32 filters, BN, ReLU
Residual block: 2x 3x3 conv., 32 filters, BN, ReLU
Residual block: 2x 3x3 conv. (first with stride 2), 64 filters, BN, ReLU
Residual block: 2x 3x3 conv., 64 filters, BN, ReLU
Residual block: 2x 3x3 conv., 64 filters, BN, ReLU
Residual block: 2x 3x3 conv., 64 filters, BN, ReLU
Residual block: 2x 3x3 conv., 64 filters, BN, ReLU
Global mean pool
FC layer, 10 or 100 units
Softmax
Total number of parameters: 0.46M (CNN and ResNet Init) / 0.49M (ResNet and RiR)

18-layer and wide CNN architecture

3x3 conv., 96 filters, BN, ReLU
Residual block: 2x 3x3 conv., 96 filters, BN, ReLU
Residual block: 2x 3x3 conv., 96 filters, BN, ReLU
Residual block: 2x 3x3 conv. (first with stride 2), 192 filters, BN, ReLU
Residual block: 2x 3x3 conv., 192 filters, BN, ReLU
Residual block: 2x 3x3 conv., 192 filters, BN, ReLU
Residual block: 2x 3x3 conv. (first with stride 2), 384 filters, BN, ReLU
Residual block: 2x 3x3 conv., 384 filters, BN, ReLU
Residual block: 2x 3x3 conv., 384 filters, BN, ReLU
1x1 conv., 10 or 100 filters
Global mean pool
Softmax
Total number of parameters: 9.5M (CNN and ResNet Init) / 10.3M (ResNet and RiR)