```
Sequential(
  (0): Sequential(
    (0): ResNet(
      (conv1): ShapeConv2d(6, 64, kernel_size=(7, 7), stride=(2, 2), padding=(3, 3), bias=False)
      (bn1): BatchNorm2d(64, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
      (relu1): ReLU(inplace=True)
      (maxpool): MaxPool2d(kernel_size=3, stride=2, padding=1, dilation=1, ceil_mode=False)
      (layer1): Sequential(
        (0): Bottleneck(
          (conv1): ShapeConv2d(64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(256, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
          (downsample): Sequential(
            (0): ShapeConv2d(64, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
            (1): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          )
        )
        (1): Bottleneck(
          (conv1): ShapeConv2d(256, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(256, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (2): Bottleneck(
          (conv1): ShapeConv2d(256, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(256, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
      )
      (layer2): Sequential(
        (0): Bottleneck(
          (conv1): ShapeConv2d(256, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(512, 512, kernel_size=(3, 3), stride=(2, 2), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
          (downsample): Sequential(
            (0): ShapeConv2d(256, 512, kernel_size=(1, 1), stride=(2, 2), bias=False)
            (1): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          )
        )
        (1): Bottleneck(
          (conv1): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (2): Bottleneck(
          (conv1): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
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        )
        (3): Bottleneck(
          (conv1): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(512, 512, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(512, 512, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(512, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
      )
      (layer3): Sequential(
        (0): Bottleneck(
          (conv1): ShapeConv2d(512, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(2, 2), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
          (downsample): Sequential(
            (0): ShapeConv2d(512, 1024, kernel_size=(1, 1), stride=(2, 2), bias=False)
            (1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          )
        )
        (1): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (2): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (3): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (4): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (5): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
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          (relu3): ReLU(inplace=True)
        )
        (6): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (7): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (8): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (9): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (10): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (11): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (12): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (13): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
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          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (14): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (15): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (16): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (17): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (18): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (19): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (20): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
```

```
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (21): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (22): Bottleneck(
          (conv1): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(1024, 1024, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), groups=32,
bias=False)
          (bn2): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(1024, 1024, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(1024, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
      )
      (layer4): Sequential(
        (0): Bottleneck(
          (conv1): ShapeConv2d(1024, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(2048, 2048, kernel_size=(3, 3), stride=(1, 1), padding=(2, 2), dilation=(2, 2),
groups=32, bias=False)
          (bn2): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(2048, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
          (downsample): Sequential(
            (0): ShapeConv2d(1024, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
            (1): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          )
        )
        (1): Bottleneck(
          (conv1): ShapeConv2d(2048, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(2048, 2048, kernel_size=(3, 3), stride=(1, 1), padding=(4, 4), dilation=(4, 4),
groups=32, bias=False)
          (bn2): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(2048, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
        (2): Bottleneck(
          (conv1): ShapeConv2d(2048, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn1): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu1): ReLU(inplace=True)
          (conv2): ShapeConv2d(2048, 2048, kernel_size=(3, 3), stride=(1, 1), padding=(8, 8), dilation=(8, 8),
groups=32, bias=False)
          (bn2): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu2): ReLU(inplace=True)
          (conv3): ShapeConv2d(2048, 2048, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn3): BatchNorm2d(2048, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu3): ReLU(inplace=True)
        )
      )
    )
    (1): ASPP(
      (convs): ModuleList(
        (0): ConvModule(
          (conv): ShapeConv2d(2048, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu): ReLU(inplace=True)
        )
        (1): ConvModule(
          (conv): ShapeConv2d(2048, 256, kernel_size=(3, 3), stride=(1, 1), padding=(6, 6), dilation=(6, 6),
bias=False)
          (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu): ReLU(inplace=True)
        )
        (2): ConvModule(
          (conv): ShapeConv2d(2048, 256, kernel_size=(3, 3), stride=(1, 1), padding=(12, 12), dilation=(12, 12),
bias=False)
          (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
```

```
          (relu): ReLU(inplace=True)
        )
        (3): ConvModule(
          (conv): ShapeConv2d(2048, 256, kernel_size=(3, 3), stride=(1, 1), padding=(18, 18), dilation=(18, 18),
bias=False)
          (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu): ReLU(inplace=True)
        )
        (4): ASPPPooling(
          (0): AdaptiveAvgPool2d(output_size=1)
          (1): ConvModule(
            (conv): ShapeConv2d(2048, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
            (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
            (relu): ReLU(inplace=True)
          )
        )
      )
      (project): ConvModule(
        (conv): ShapeConv2d(1280, 256, kernel_size=(1, 1), stride=(1, 1), bias=False)
        (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
        (relu): ReLU(inplace=True)
      )
      (dropout): Dropout(p=0.1, inplace=False)
    )
  )
  (1): GFPN(
    (neck): ModuleList(
      (0): JunctionBlock(
        (top_down_block): Sequential()
        (lateral_block): ConvModule(
          (conv): ShapeConv2d(256, 48, kernel_size=(1, 1), stride=(1, 1), bias=False)
          (bn): BatchNorm2d(48, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
          (relu): ReLU(inplace=True)
        )
        (post_block): Sequential()
      )
    )
  )
  (2): Head(
    (block): Sequential(
      (0): ConvModules(
        (block): Sequential(
          (0): ConvModule(
            (conv): ShapeConv2d(304, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)
            (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
            (relu): ReLU(inplace=True)
          )
          (1): ConvModule(
            (conv): ShapeConv2d(256, 256, kernel_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)
            (bn): BatchNorm2d(256, eps=1e-05, momentum=0.1, affine=True, track_running_stats=True)
            (relu): ReLU(inplace=True)
          )
        )
      )
      (1): ConvModule(
        (conv): ShapeConv2d(256, 40, kernel_size=(1, 1), stride=(1, 1))
      )
      (2): Upsample(size=(427, 561), mode=bilinear)
    )
  )
)
2021-09-21 15:36:58,031 - INFO - Load checkpoint from model_zoo/nyu40_deeplabv3plus_resnext101_shape.pth
```