https://zhuanlan.zhihu.com/p/427039880

model: MCnet(

(model): Sequential(

(0): Focus(

(conv): Conv(

(conv): Conv2d(12, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(1): Conv(

(conv): Conv2d(32, 64, kernel\_size=(3, 3), stride=(2, 2), padding=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(2): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(64, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv2d(64, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(32, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(32, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(32, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(3): Conv(

(conv): Conv2d(64, 128, kernel\_size=(3, 3), stride=(2, 2), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(4): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(128, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv2d(128, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(64, 64, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(1): Bottleneck(

(cv1): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(64, 64, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(2): Bottleneck(

(cv1): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(64, 64, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(5): Conv(

(conv): Conv2d(128, 256, kernel\_size=(3, 3), stride=(2, 2), padding=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(6): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(256, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv2d(256, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(128, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(1): Bottleneck(

(cv1): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(128, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(2): Bottleneck(

(cv1): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(128, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(7): Conv(

(conv): Conv2d(256, 512, kernel\_size=(3, 3), stride=(2, 2), padding=(1, 1), bias=False)

(bn): BatchNorm2d(512, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(8): SPP(

(cv1): Conv(

(conv): Conv2d(512, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(1024, 512, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(512, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(m): ModuleList(

(0): MaxPool2d(kernel\_size=5, stride=1, padding=2, dilation=1, ceil\_mode=False)

(1): MaxPool2d(kernel\_size=9, stride=1, padding=4, dilation=1, ceil\_mode=False)

(2): MaxPool2d(kernel\_size=13, stride=1, padding=6, dilation=1, ceil\_mode=False)

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(9): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(512, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(512, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(512, 512, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(512, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(512, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(256, 256, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(10): Conv(

(conv): Conv2d(512, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(11): Upsample(scale\_factor=2.0, mode=nearest)

(12): Concat()

(13): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(512, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(512, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(128, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(14): Conv(

(conv): Conv2d(256, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(15): Upsample(scale\_factor=2.0, mode=nearest)

(16): Concat()

(17): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(256, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(256, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv(

(conv): Conv2d(64, 64, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(18): Conv(

(conv): Conv2d(128, 128, kernel\_size=(3, 3), stride=(2, 2), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(19): Concat()

(20): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(256, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(cv2): Conv2d(256, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(128, 128, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(128, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(21): Conv(

(conv): Conv2d(256, 256, kernel\_size=(3, 3), stride=(2, 2), padding=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(22): Concat()

(23): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(512, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(512, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(512, 512, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(512, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(512, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(256, 256, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(256, 256, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(256, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(24): Detect(

(m): ModuleList(

(0): Conv2d(128, 18, kernel\_size=(1, 1), stride=(1, 1))

(1): Conv2d(256, 18, kernel\_size=(1, 1), stride=(1, 1))

(2): Conv2d(512, 18, kernel\_size=(1, 1), stride=(1, 1))

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)

(25): Conv(

(conv): Conv2d(256, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(26): Upsample(scale\_factor=2.0, mode=nearest)

(27): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(128, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(128, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(32, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(32, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(32, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(28): Conv(

(conv): Conv2d(64, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(29): Upsample(scale\_factor=2.0, mode=nearest)

(30): Conv(

(conv): Conv2d(32, 16, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(16, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(31): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(16, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(4, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(16, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(4, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(8, 8, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(8, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(8, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(4, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(4, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(4, 4, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(4, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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(32): Upsample(scale\_factor=2.0, mode=nearest)

(33): Conv(

(conv): Conv2d(8, 2, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(2, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(34): Conv(

(conv): Conv2d(256, 128, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(128, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(35): Upsample(scale\_factor=2.0, mode=nearest)

(36): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(128, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(128, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(32, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(64, 64, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(64, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(32, 32, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(32, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

)

)

)

(37): Conv(

(conv): Conv2d(64, 32, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(32, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(38): Upsample(scale\_factor=2.0, mode=nearest)

(39): Conv(

(conv): Conv2d(32, 16, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(16, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(40): BottleneckCSP(

(cv1): Conv(

(conv): Conv2d(16, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(4, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv2d(16, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv3): Conv2d(4, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(cv4): Conv(

(conv): Conv2d(8, 8, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(8, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(bn): BatchNorm2d(8, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): LeakyReLU(negative\_slope=0.1, inplace=True)

(m): Sequential(

(0): Bottleneck(

(cv1): Conv(

(conv): Conv2d(4, 4, kernel\_size=(1, 1), stride=(1, 1), bias=False)

(bn): BatchNorm2d(4, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

(cv2): Conv(

(conv): Conv2d(4, 4, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(4, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

)

)

)

)

(41): Upsample(scale\_factor=2.0, mode=nearest)

(42): Conv(

(conv): Conv2d(8, 2, kernel\_size=(3, 3), stride=(1, 1), padding=(1, 1), bias=False)

(bn): BatchNorm2d(2, eps=0.001, momentum=0.03, affine=True, track\_running\_stats=True)

(act): Hardswish()

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