**COSE474 Project 3 – Encoder Decoder Implementation**

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**1. Unet Implementation**

텍스트이(가) 표시된 사진

자동 생성된 설명

Input 🡪 convdown1 🡪 pooling 🡪 convdown2 🡪 pooling 🡪 convdown3 🡪 pooling 🡪 convdown4 🡪 pooling 🡪 convdown5 🡪 upsample 🡪 concat with convdown4 output 🡪 convup4 🡪 upsample 🡪 concat with convdown3 output 🡪 convup3 🡪 upsample 🡪 concat with convdown2 output 🡪 convup2 🡪 upsample 🡪 concat with convdown1 output 🡪 convup1 🡪 convup\_fin 🡪 output

In short:  
Input 🡪

ENCODER: [ convdown 🡪 pooling 🡪 convdown (exclude in last) ] \* 5 🡪

DECODER: upsample 🡪 [ concat 🡪 convup 🡪 upsample (exclude in last) ] \* 4 🡪 convup\_fin

🡪 output

**2. Resnet Encoder Unet Implementation**

텍스트이(가) 표시된 사진

자동 생성된 설명

Input 🡪 layer1(conv🡪norm🡪relu) 🡪 pooling 🡪 layer2(residual block \* 3) 🡪 layer3(residual block \* 4) 🡪 bridge(conv) 🡪 upconv1(conv) 🡪 concatenate with layer2 output 🡪 Unet conv1(conv) 🡪 upconv2\_1(conv) 🡪 upconv2\_2(conv) 🡪 concatenate with layer1&pooling output 🡪 upsample 🡪 Unet conv2\_1(conv) 🡪 Unet conv2\_2(conv) 🡪 Unet conv2\_3(conv) 🡪 output

In short:  
Input 🡪

ENCODER: [ conv 🡪 norm 🡪 relu ] 🡪 pooling 🡪 [ residual block ] \* 7 🡪

BRIDGE: conv 🡪

DECODER: [ upconv \* n 🡪 concat 🡪 conv \* n ] \* n

🡪 output