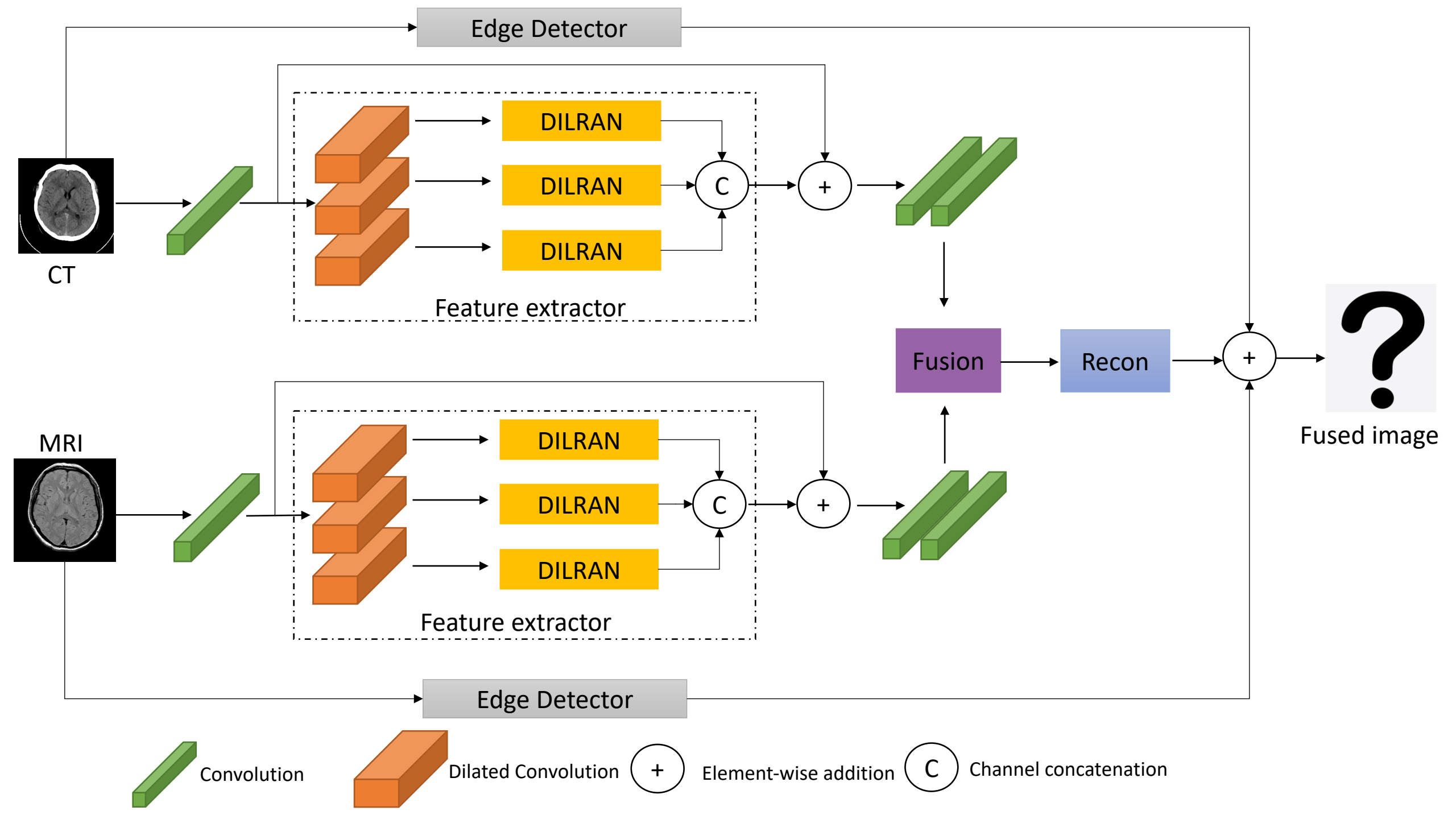
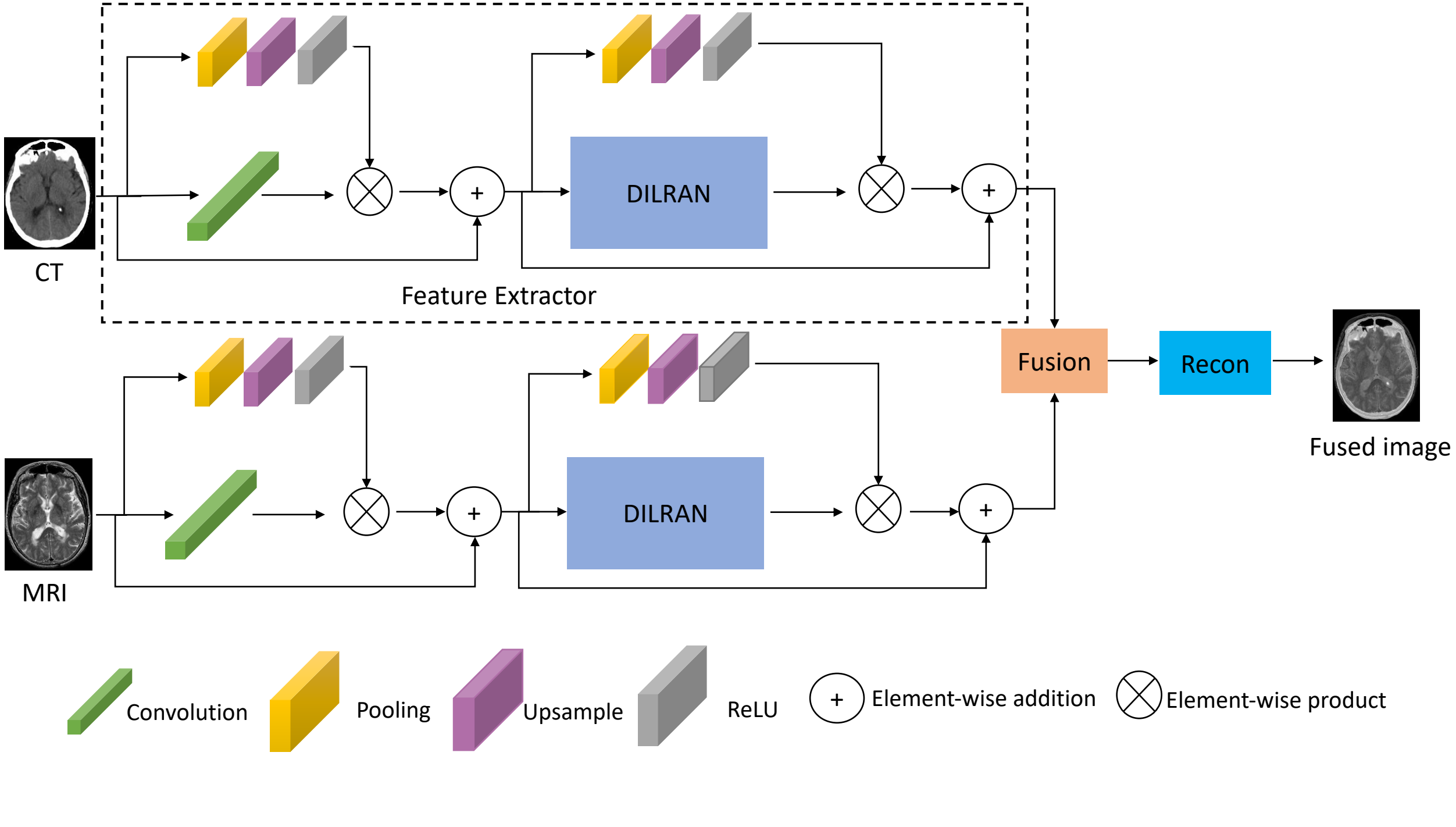
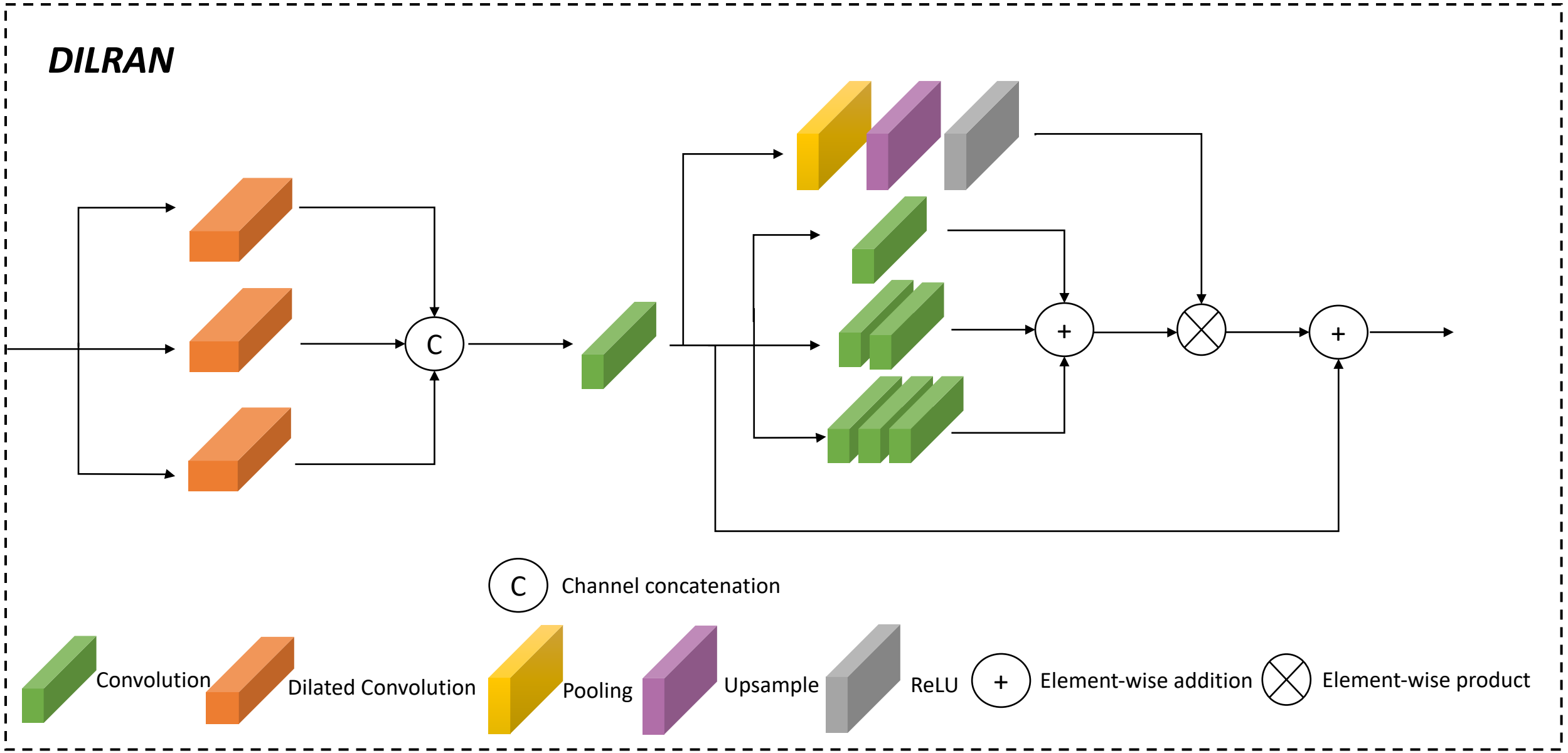
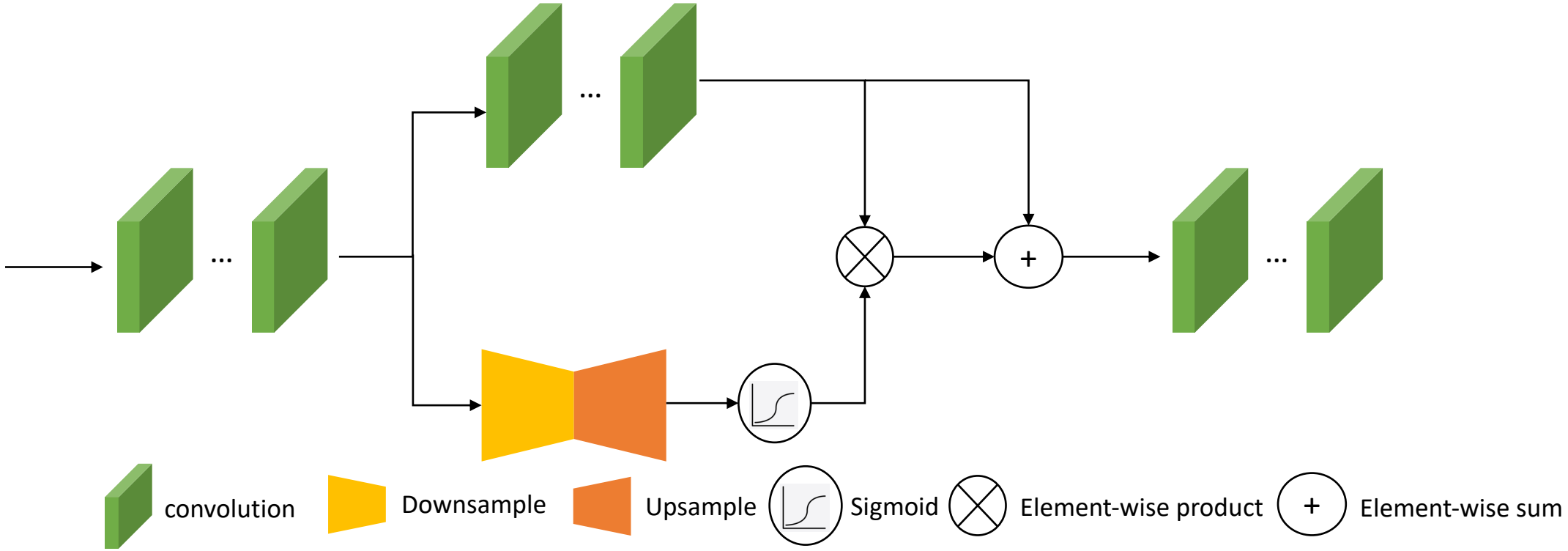
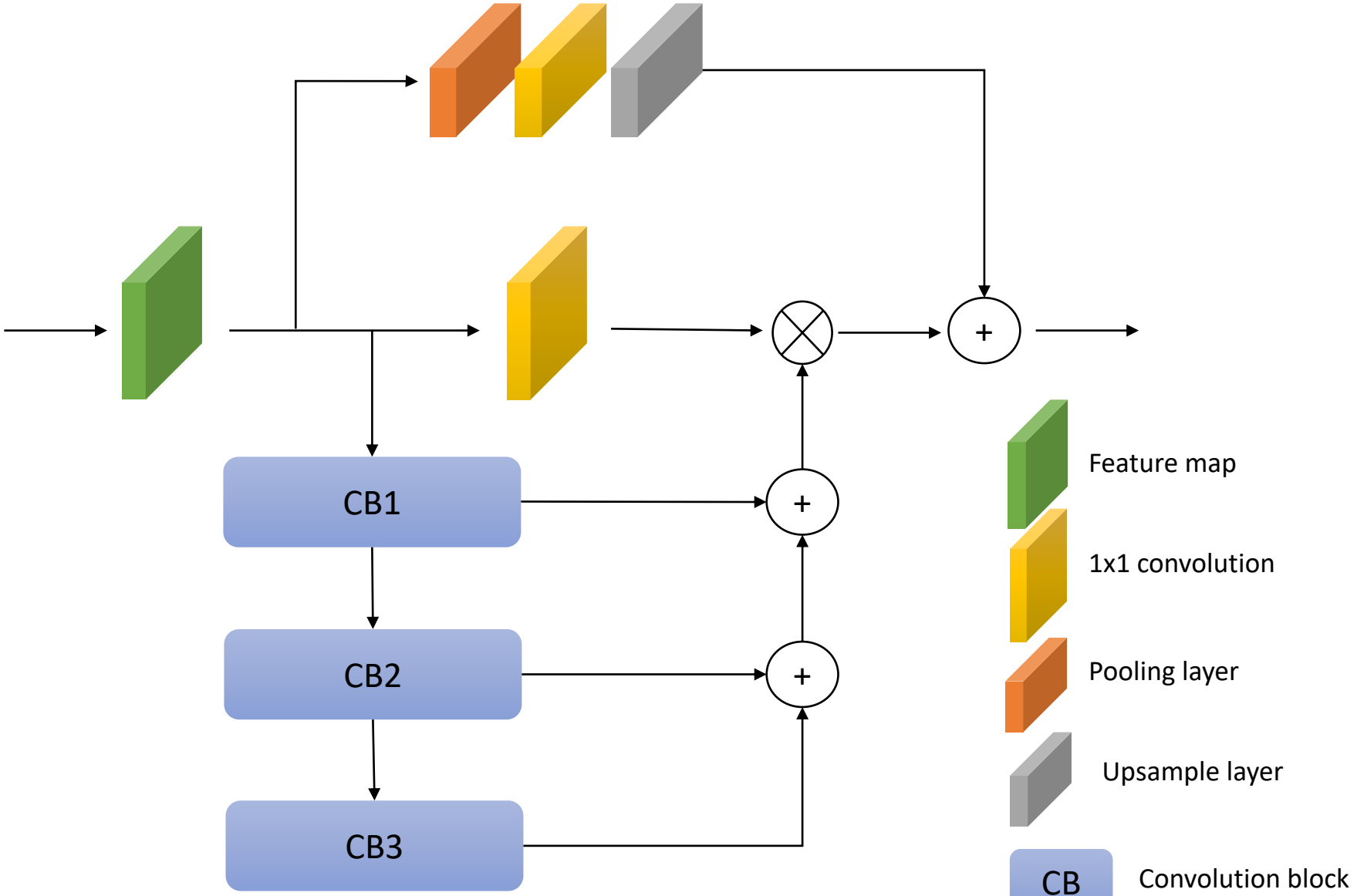
An Attention-based Multi-Scale Feature Learning Network for Multimodal Medical Image Fusion

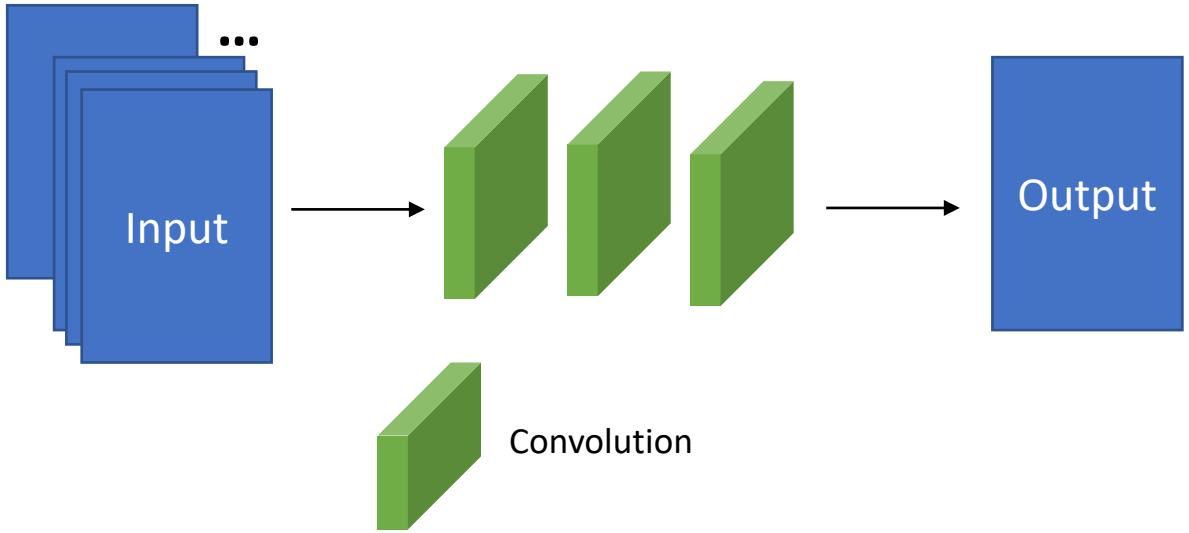
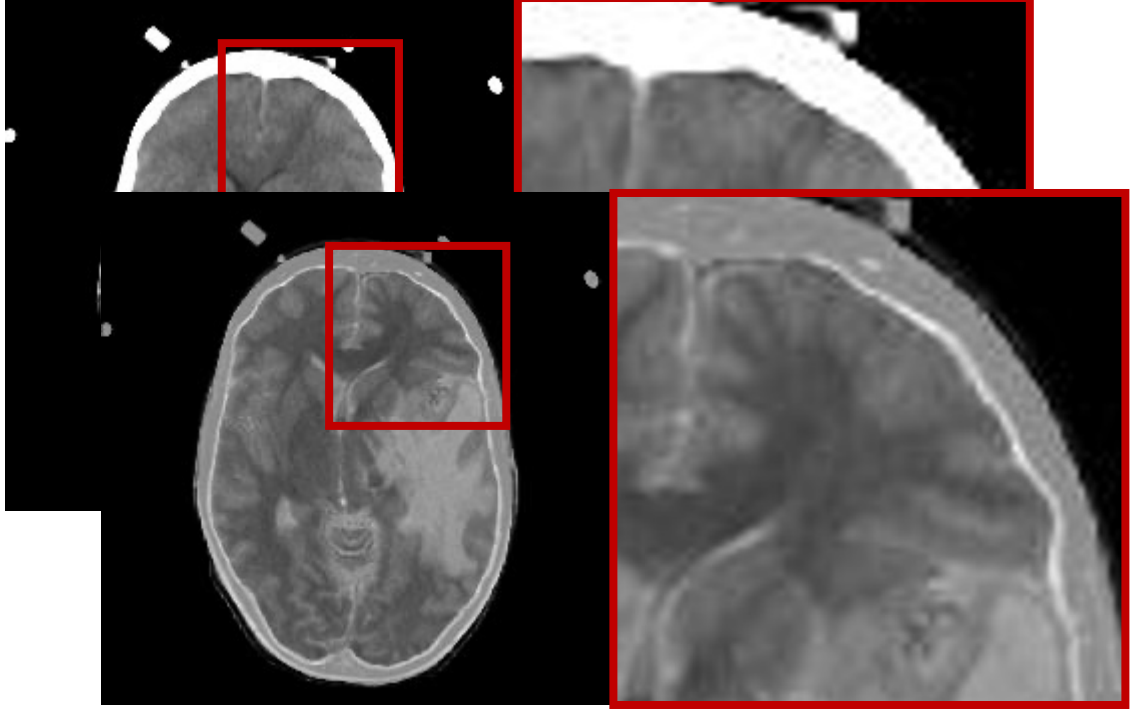
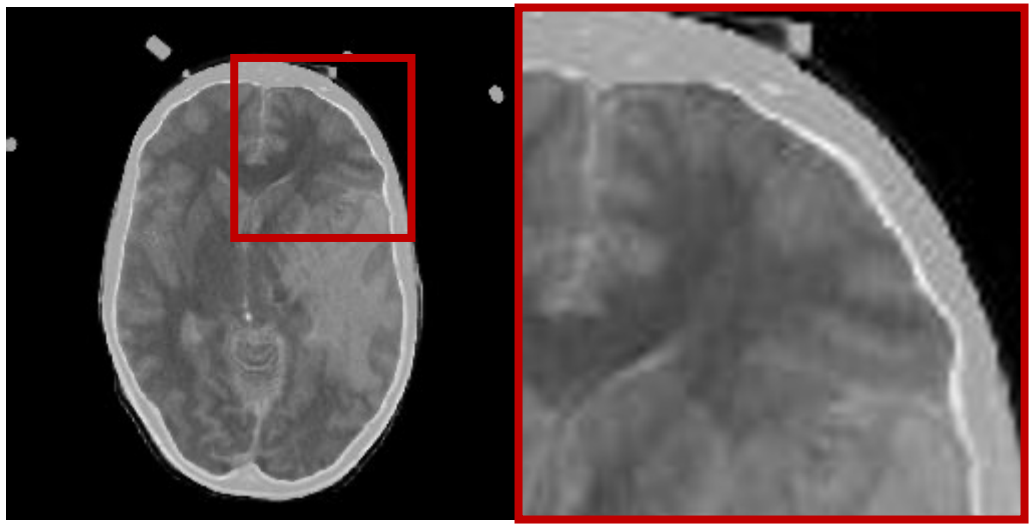
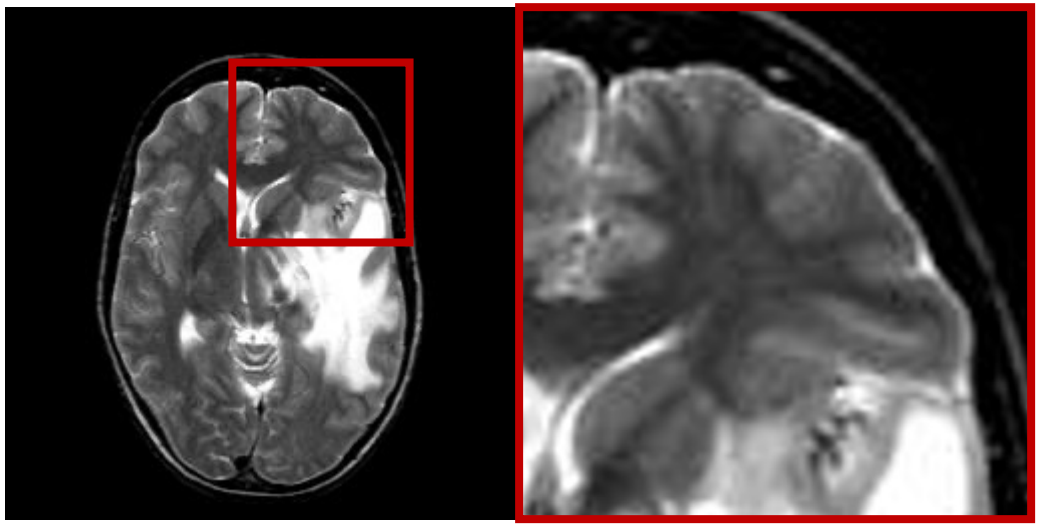
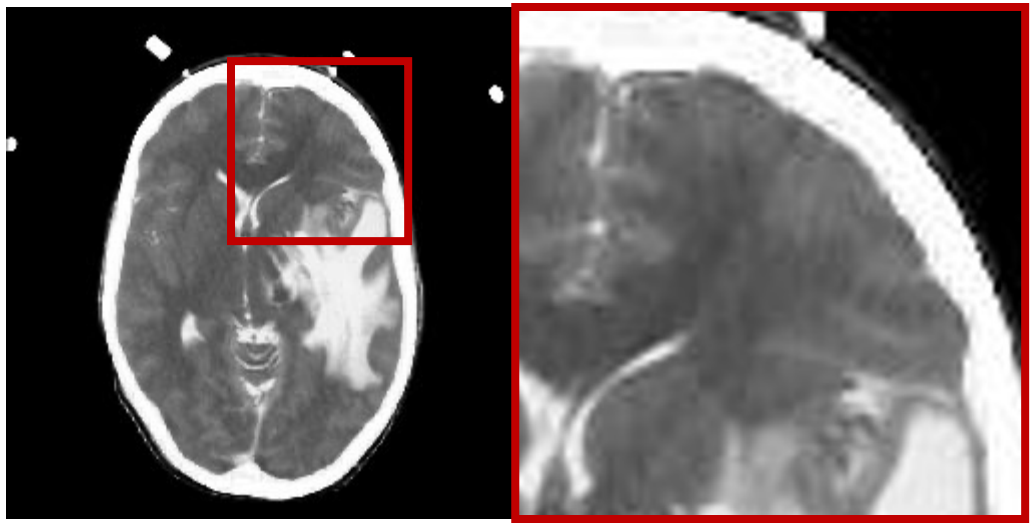
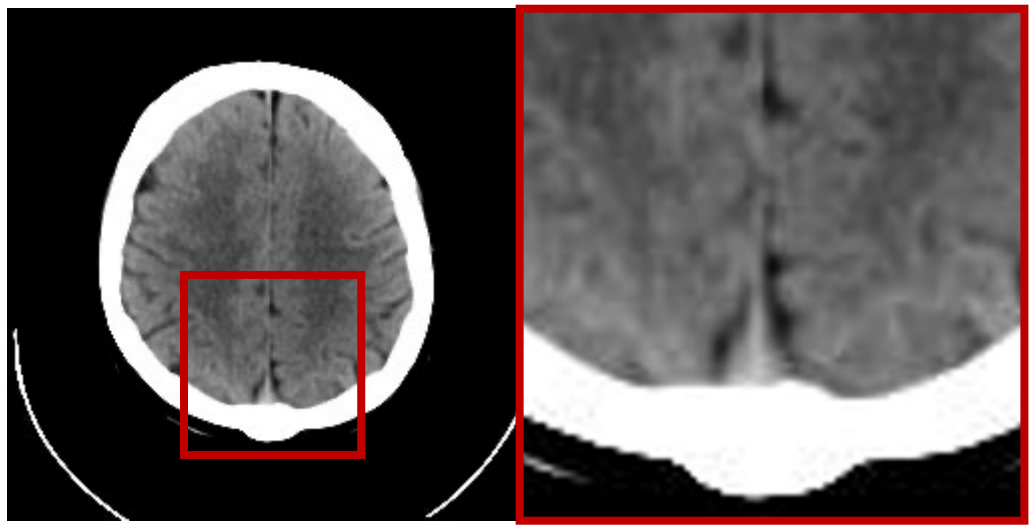
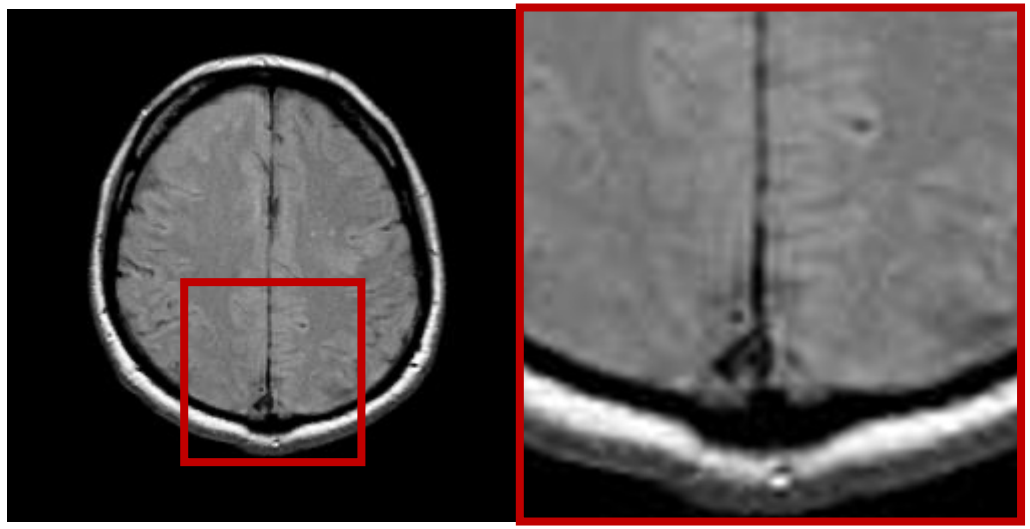
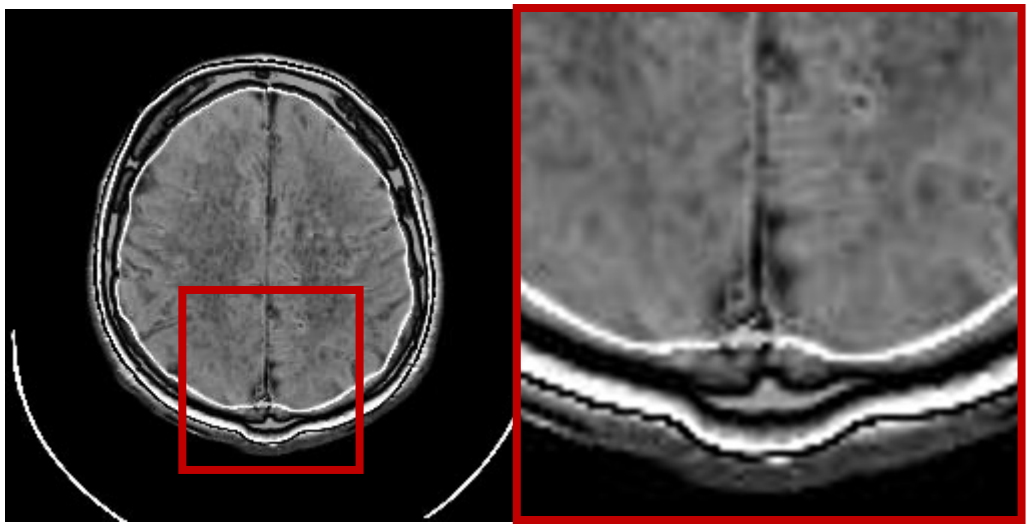
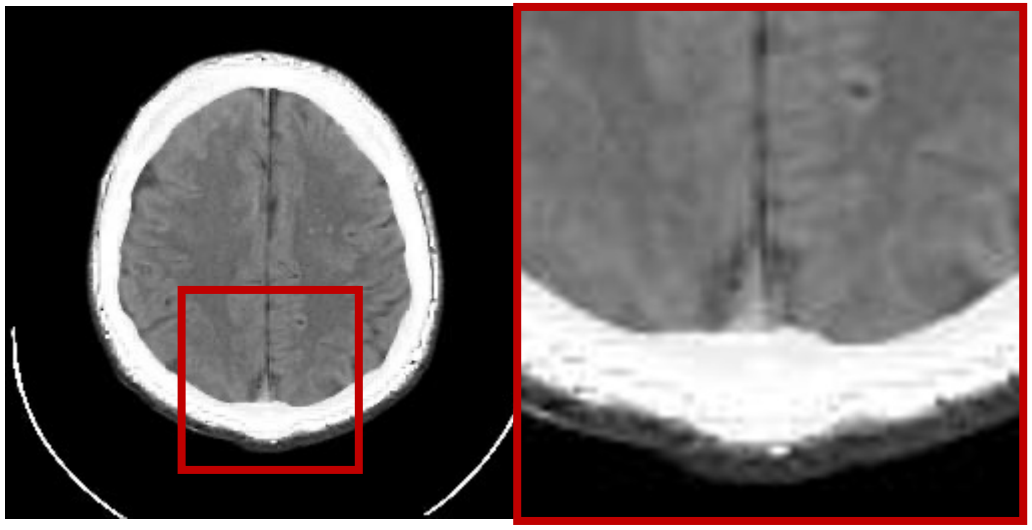
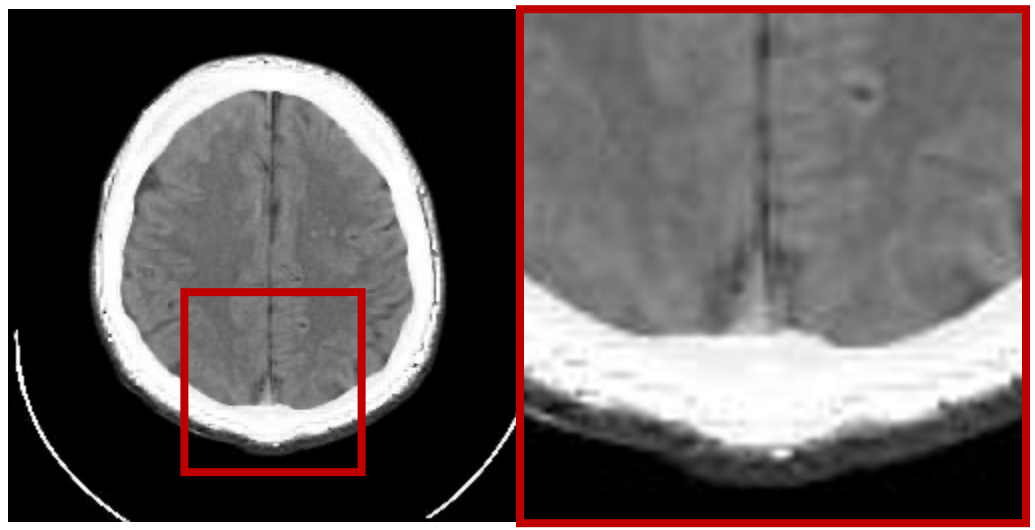
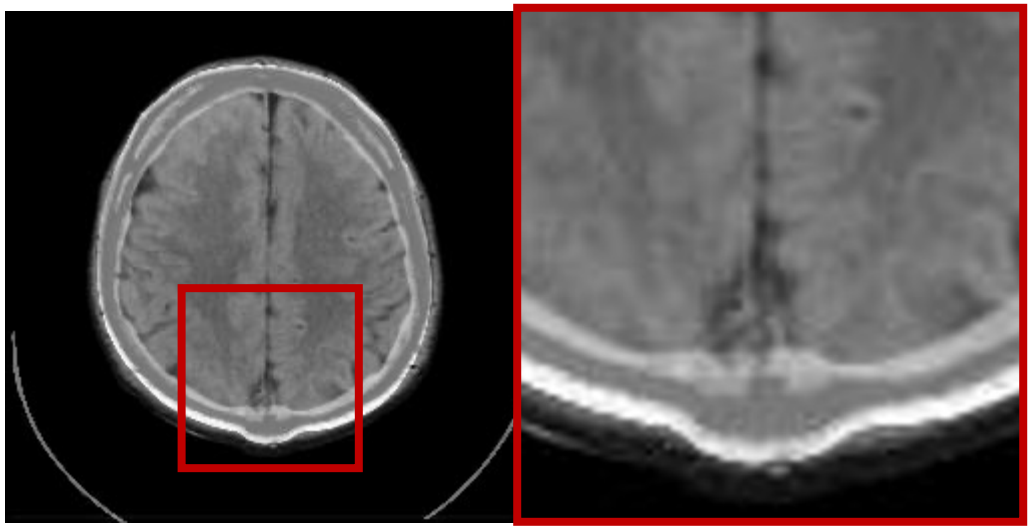
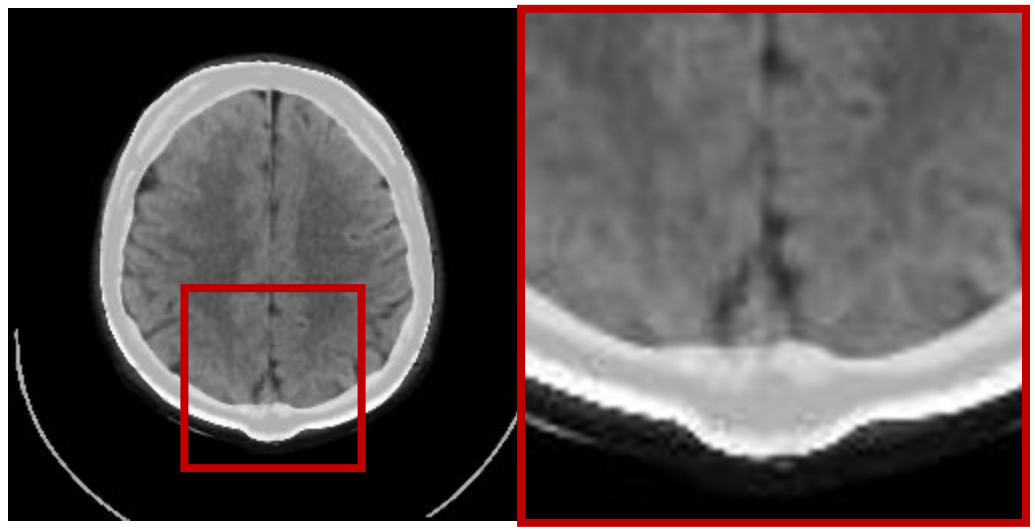
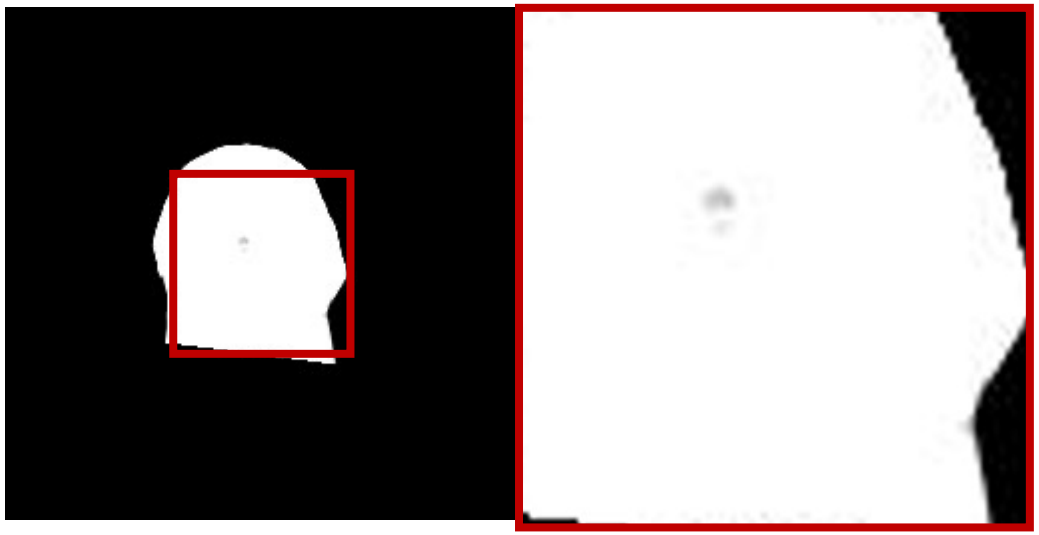
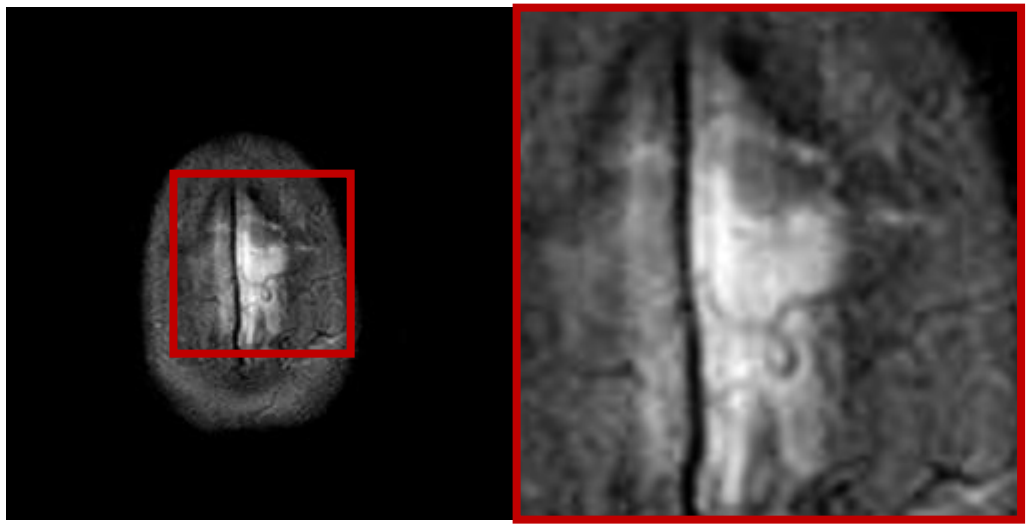
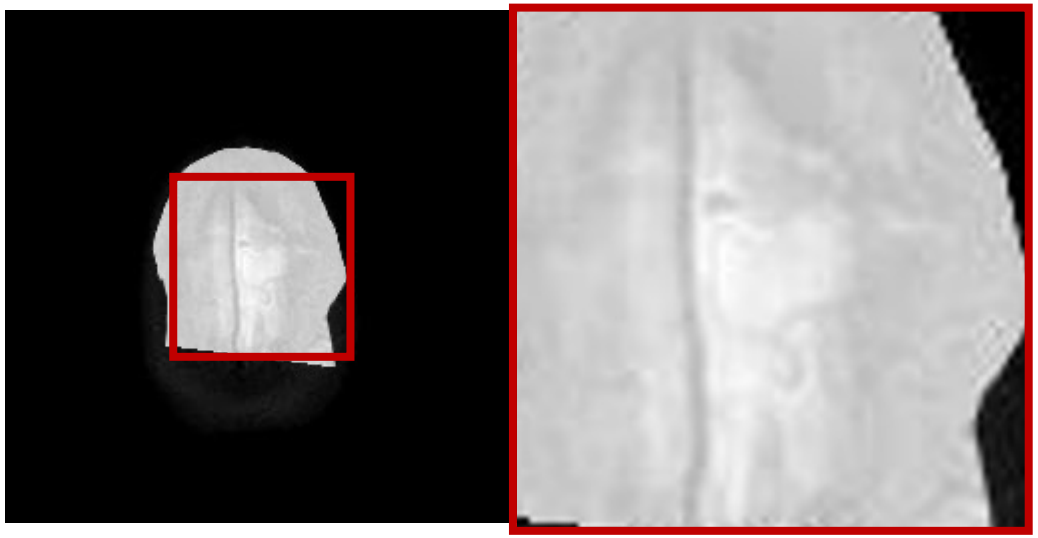
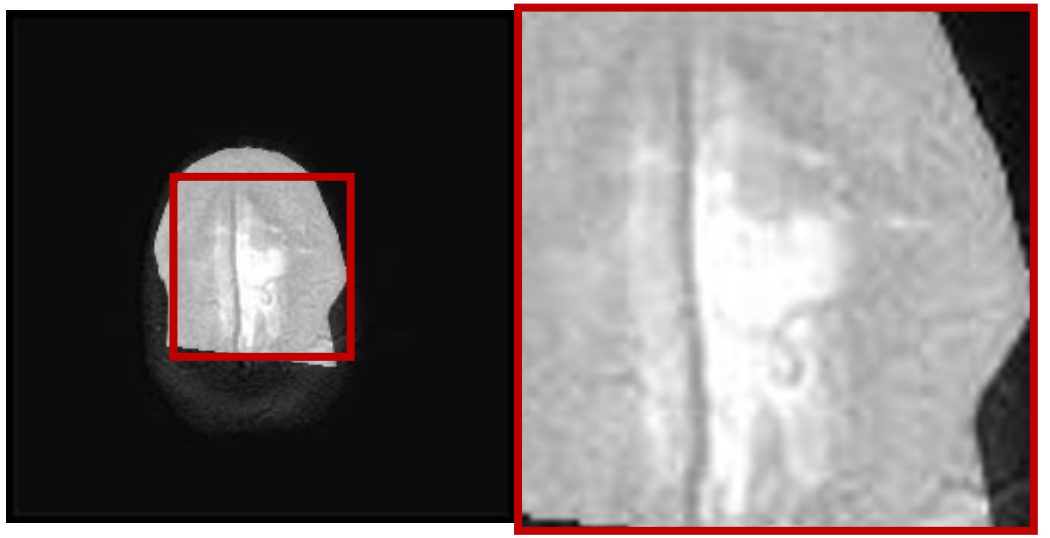
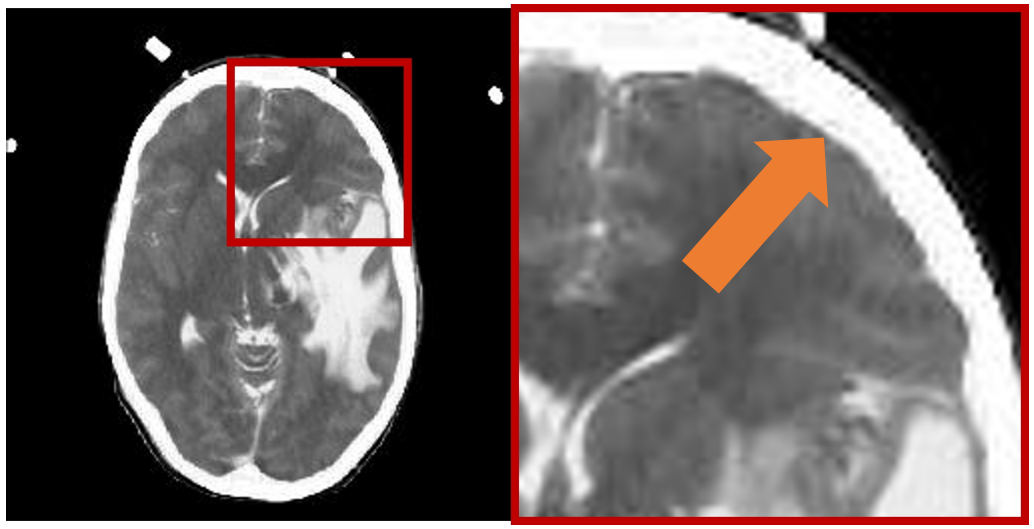
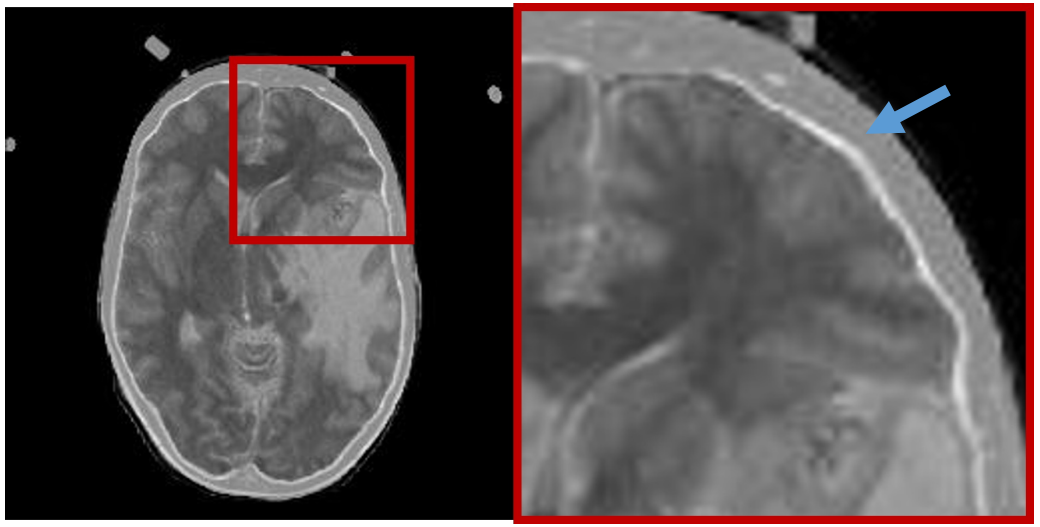
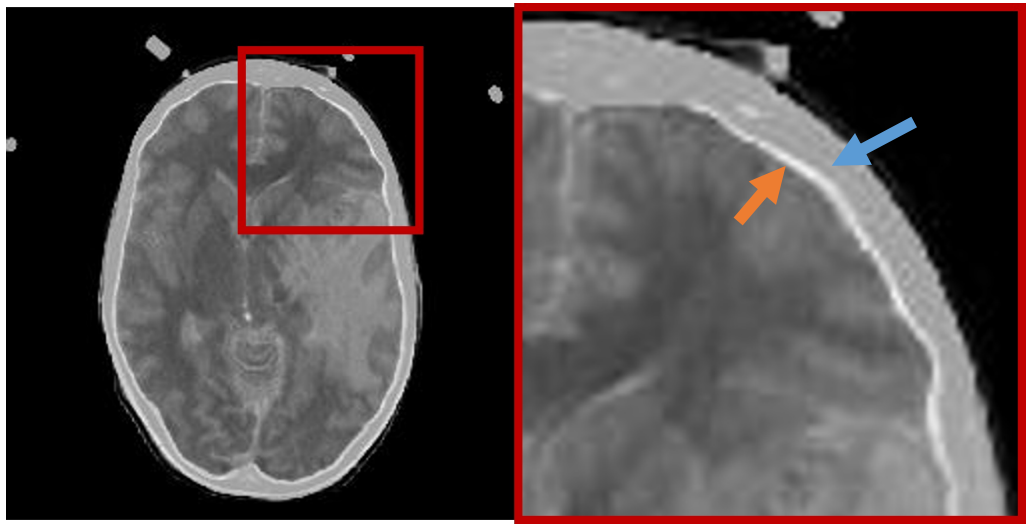
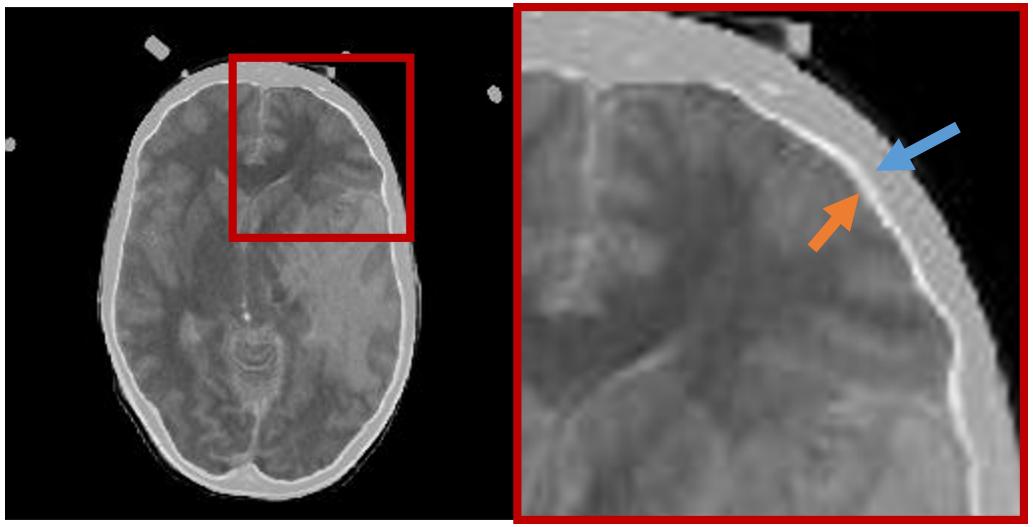

Edge Detector
CT
DILRAN
DILRAN
DILRAN
C
+
Feature extractor
Fusion
Recon
+
Fused image
MRI
DILRAN
DILRAN
DILRAN
C
+
Feature extractor
Edge Detector
Convolution
Dilated Convolution
+
Element-wise addition
C
Channel concatenation


CT
Feature Extractor
DILRAN
DILRAN
Fusion
Recon
Fused image
MRI
Convolution
Pooling
Upsample
ReLU
Element-wise addition
Element-wise product


DILRAN
C
+
+
C
Channel concatenation
Convolution
Dilated Convolution
Pooling
Upsample
ReLU
+
Element-wise addition
Element-wise product


convolution
Downsample
Upsample
Sigmoid
Element-wise product
Element-wise sum


CB1
CB2
CB3
+
+
+
Feature map
1x1 convolution
Pooling layer
Upsample layer
CB
Convolution block


Input
Output
Convolution