Network:



The network includes down-sampling and up-sampling path. We concatenate the same size feature map of the corresponding down-sampling path and up-sampling path. We did not use any pre-processing. Every convolution is followed by a BN and ReLu. We use Adam to optimize our network. The initial learning rate is 0.01 and is 0.6 times lower every 4 epochs. Our work is based on pytorch.

3-label segmentation:

We segment 6 tissues including CSF, GM, WM, brain stem, cerebellum and background. But only CSF, GM, WM are finally output for evaluation.

We use three modalities T1, T2-FLAIR, T1-IR.

We need CPU only and one set of data needs about 44 seconds.