A Brief Technical Report on Our Submitted Model
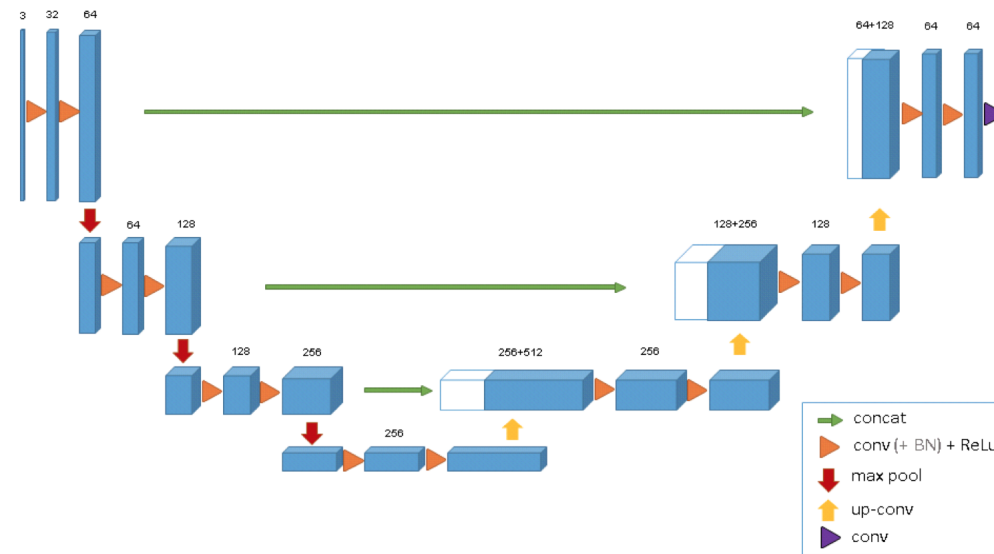
Team ABC

Figure 1: Network architecture (from [1]).

Our segmentation network is basically 3D-Unet following [1], which is implemented in PyTorch. During training, we use randomly cropped $128 \times 128 \times 128$ patches and multiple data augmentation techniques including random resizing, random rotation, random axis-wise flipping, random axis permutation, random intensity contrast, random additive Gaussian noise and Poisson noise. To train the model, we use Adam optimizer with the learning rate initialized as $1e - 4$ and decayed by cosine curve. A linear combination of Dice loss and Binary Cross Entropy loss is used as training supervision. During test, we use an ensemble of five models.

References

[1] Özgün Çiçek et al. "3D U-Net: learning dense volumetric segmentation from sparse annotation". In: *International conference on medical image computing and computer-assisted intervention*. Springer. 2016, pp. 424–432.