

# Adversarial Correction Networks for Image Segmentation

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## 1 Introduction

A lot of great segmentation methods have been proposed since the medical image analysis community comes to the deep learning era [2]. UNet (VNet) is of the most successful models for segmenting medical images since it can better capture the details [4, 5]. In this work, we propose to use adversarial learning mechanism to correct the wrongly segmented regions based on a basic UNet-like (VNet-like) structure. Also, we further improve the skip connection by well designing the connections [1, 5]. The carefully designed dilation module is also adopted to enlarge the receptive field without costing much more memory. Also, some smooth strategy is used to improve the segmentation results.

## 2 Experiments

We separate the available training data from the prostate challenge dataset (PROMISE2012 [3]) into 3 parts: 40 subjects for training, 5 subjects for validation, 5 subjects for testing. And we conduct the experiments five times with randomly partition of dataset. Then, for the testing dataset, we simply ensemble the model among the trained 5 models to evaluate the coming testing subject.

## References

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