KW43 NiftyNet

Methodical analysis of the hyper parameter:

Size	Learning Rate	Patch/Batch	Lossfunction	Iterations	Samples
full	0.00001	48*48*48 / 8	gdsc	50000 (cpt2000)	1024
half (2.2, 2.2, 3)	0.0001	96*96*72 / 1	dice		
quarter (4.4, 4.4, 3)	0.001				

Full size just use bigger Patch size, do get a better foreground/background ratio

Quater size just use smalle Patch size, bigger is simillar to resize

As shown in:

Sudre, C. H., Li, W., Vercauteren, T., Ourselin, S., & Cardoso, M. J. (2017). Generalised Dice overlap as a deep learning loss function for highly unbalanced segmentations, 1–8. Retrieved from http://arxiv.org/abs/1707.03237

bigger patchsizes with a ratio of about 0.02 for the highres3dnet show stable results over differnt LR what we would like to achive for the first iter

Other param:

name = highres3dnet

decay = 0

volume_padding_size = 4

whitening = True

window_sampling = weighted (using foreground as frequency map)

created configs:

full_e-3_96-1_dice_50k_1024s.ini*

full_e-3_96-1_gdsc_50k_1024s.ini*

full_e-4_96-1_dice_50k_1024s.ini*

full_e-4_96-1_gdsc_50k_1024s.ini*

full_e-5_96-1_dice_50k_1024s.ini*

full_e-5_96-1_gdsc_50k_1024s.ini*

half_e-3_48-8_dice_50k_1024s.ini*

half_e-3_48-8_gdsc_50k_1024s.ini*

half_e-3_96-1_dice_50k_1024s.ini*

half_e-3_96-1_gdsc_50k_1024s.ini*

half_e-4_48-8_dice_50k_1024s.ini*

half_e-4_48-8_gdsc_50k_1024s.ini*

half_e-4_96-1_dice_50k_1024s.ini*

half_e-4_96-1_gdsc_50k_1024s.ini*

half_e-5_48-8_dice_50k_1024s.ini*

half_e-5_48-8_gdsc_50k_1024s.ini*

half_e-5_96-1_dice_50k_1024s.ini*

half_e-5_96-1_gdsc_50k_1024s.ini*

quarter_e-3_48-8_dice_50k_1024s.ini*

quarter_e-3_48-8_gdsc_50k_1024s.ini*

quarter_e-4_48-8_dice_50k_1024s.ini*

quarter_e-4_48-8_gdsc_50k_1024s.ini*

quarter_e-5_48-8_dice_50k_1024s.ini*

quarter_e-5_48-8_gdsc_50k_1024s.ini*