Deep Learning Lab Assignment 3

Setting

implement encoder-decoder segmentation in tensorflow:
decoder config1: (120 features,16x upsample)

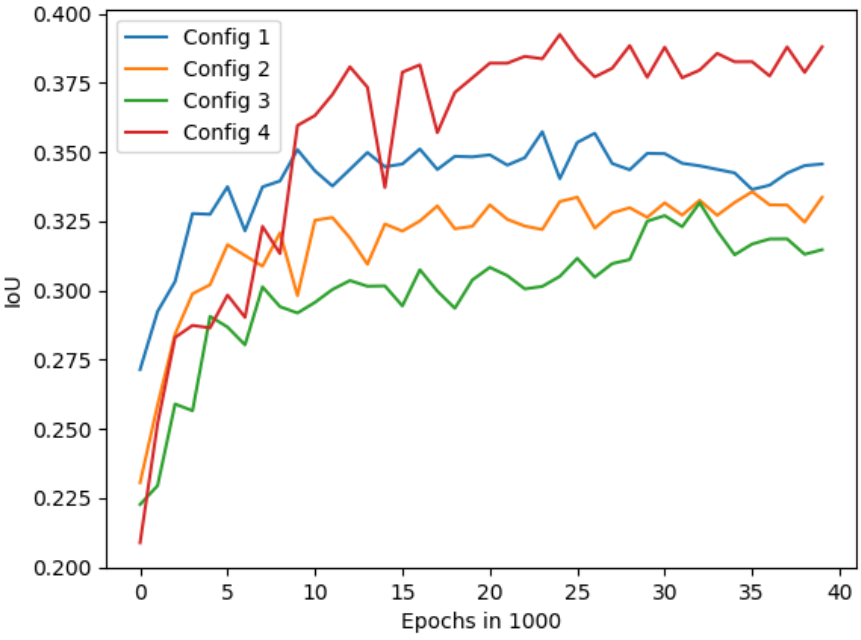
decoder config2: (160 features, 2x upsample) -> concat ->
(256 features, 3x3 conv) ->
(120 features, 8x upsample)

decoder config3: (160 features, 2x upsample) -> concat ->
(256 features, 3x3 conv) ->
(128 features, 2x upsample) -> concat ->
(160 features, 3x3 conv) ->
(120 features, 4x upsample)

decoder config4: (160 features, 2x upsample) -> concat ->
(256 features, 3x3 conv) ->
(128 features, 2x upsample) -> concat ->
(160 features, 3x3 conv) ->
(72 features, 2x upsample) -> concat ->
(96 features, 3x3 conv) ->
(120 features, 2x upsample)

note that all upsample units are using a kernel size equals upsample_rate + 1 to cover the upsample region

IoU vs epochs in different configurations



Best IoU in different configurations

Config 1	Config 2	Config 3	Config 4
0.35740135486	0.335716337866	0.331707723227	0.392545247566