

Fig. 2. An illustration of the SegNet architecture. There are no fully connected layers and hence it is only convolutional. A decoder upsamples its input using the transferred pool indices from its encoder to produce a sparse feature map(s). It then performs convolution with a trainable filter bank to densify the feature map. The final decoder output feature maps are fed to a soft-max classifier for pixel-wise classification.

Unet \rightarrow up sampling \rightarrow T Conv \rightarrow w, b

Segnet \rightarrow up sampling \rightarrow re construct \rightarrow unpooling!

w, b

SegNet یا آنزودر گسترش یافته است

دایم! (به دلیل استفاده از unpooling)

	<u>unet</u>	vs	<u>SegNet</u>
inference time			\propto
<u>FPS</u>			
<u>accuracy</u>	✓		
<u>speed</u>			✓

input

2	4
8	9

* argmax

pooling indices

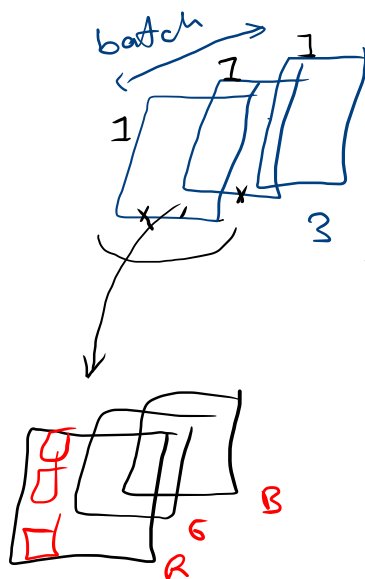
(0, 1)	(1, 2)
(2, 1)	(2, 2)



unpooling

0	2	0	0
0	0	4	0
0	8	9	0
0	0	0	0

pooling \rightsquigarrow



[1, $\overset{2}{\text{pool size}}, 2$]

