

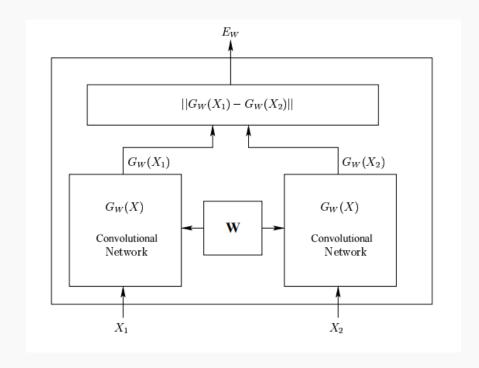
# ПРОГРАММИРОВАНИЕ CUDA C/C++, АНАЛИЗ ИЗОБРАЖЕНИЙ И DEEP LEARNING

Лекция №11

Спасёнов Алексей



#### Сиамские сети



http://yann.lecun.com/exdb/publis/pdf/chopra-05.pdf



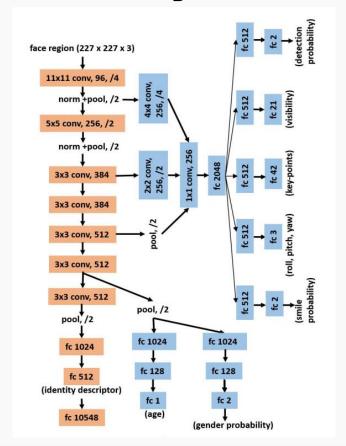
AT&T Database of Faces



#### An All-In-One Convolutional Neural Network for Face Analysis

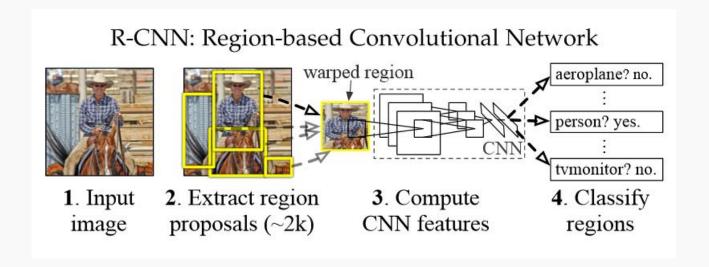


https://arxiv.org/pdf/1611.00851v1.pdf





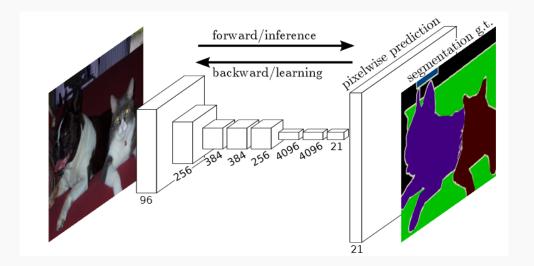
#### Object Detection and Segmentation



https://arxiv.org/pdf/1311.2524v5.pdf https://arxiv.org/pdf/1506.01497v3.pdf



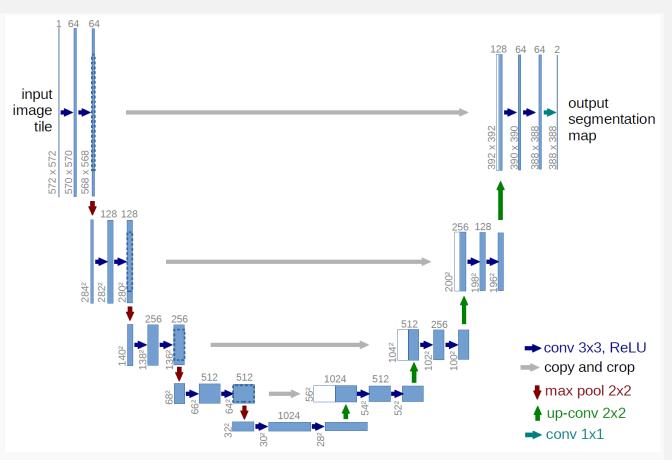
## Semantic Segmentation



https://arxiv.org/pdf/1411.4038v2.pdf



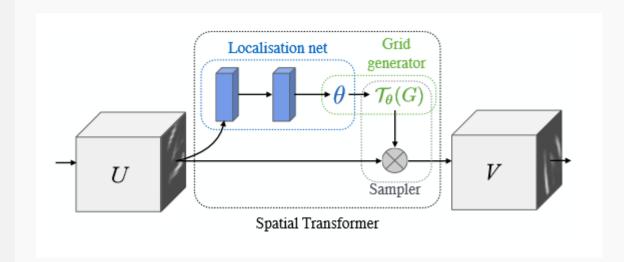
Semantic Segmentation

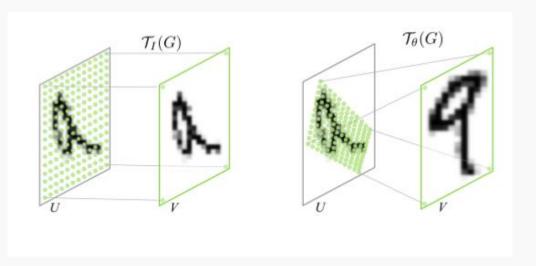


https://lmb.informatik.uni-freiburg.de/people/ronneber/u-net/
https://github.com/Lasagne/Recipes/tree/master/examples/UNet



#### Spatial Transformer Networks

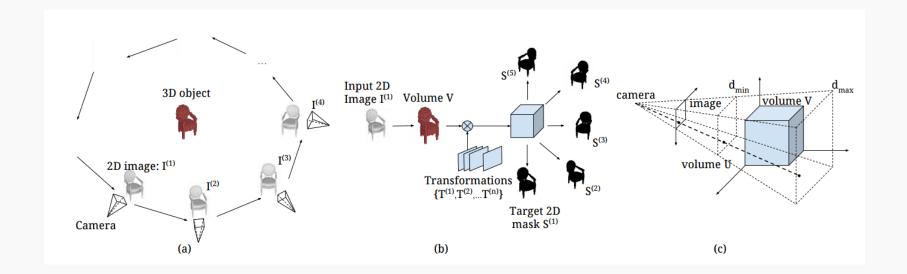




https://arxiv.org/pdf/1506.02025v3.pdf



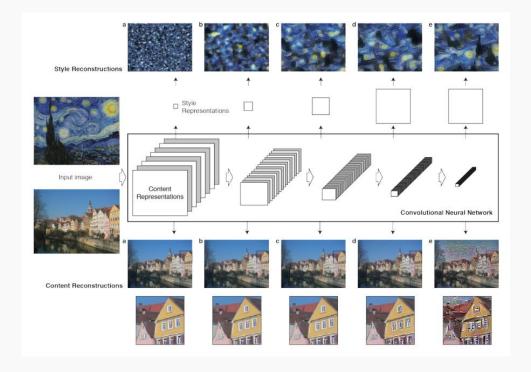
#### Perspective Transformer Nets



https://arxiv.org/pdf/1612.00814v1.pdf



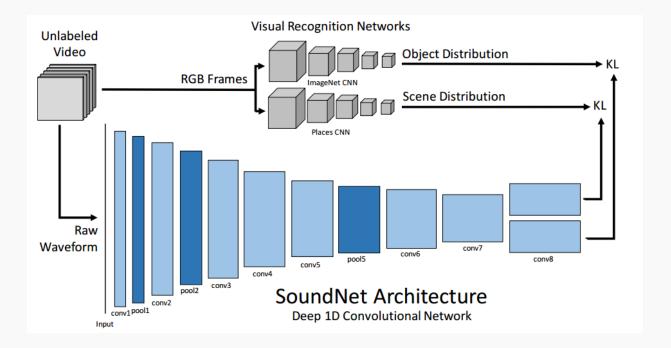
## A Neural Algorithm of Artistic Style



https://arxiv.org/pdf/1508.06576v2.pdf



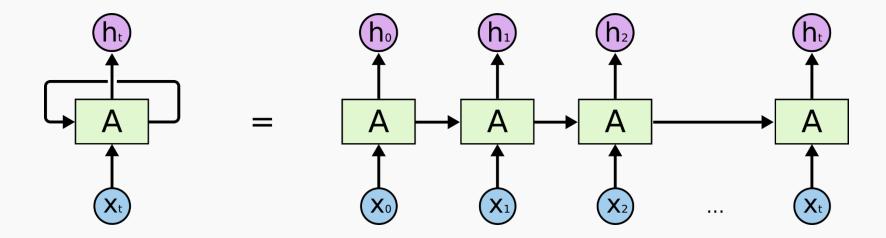
#### SoundNet



https://arxiv.org/pdf/1610.09001v1.pdf



#### Recurrent Neural Network



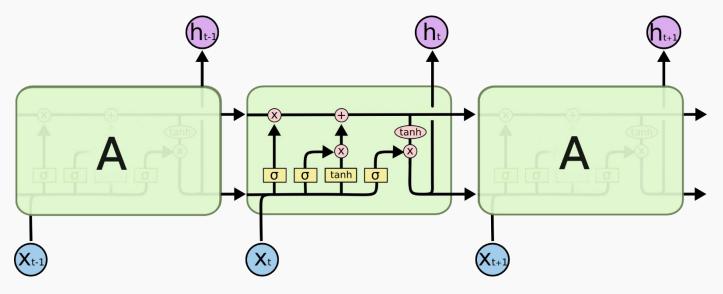
https://arxiv.org/abs/1308.0850

https://www.researchgate.net/publication/13853244\_Long\_Short-term\_Memory



Recurrent Neural Network,

Long Short-term Memory

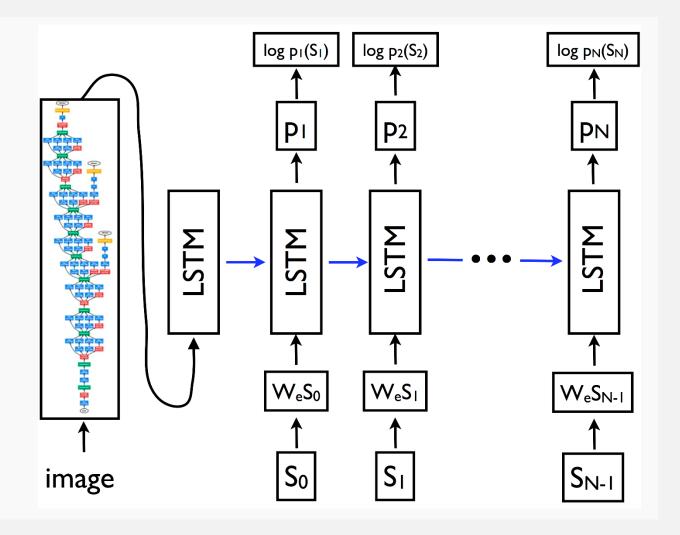


https://arxiv.org/abs/1308.0850

https://www.researchgate.net/publication/13853244 Long Short-term Memory

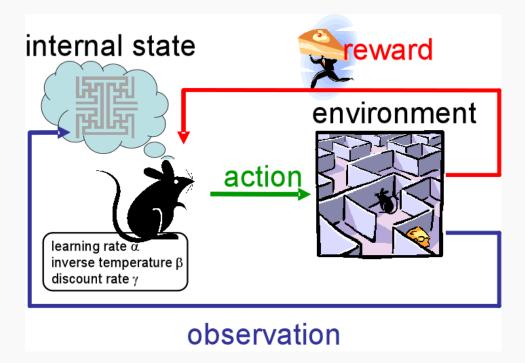


Convolution Neural Network + Recurrent Neural Network



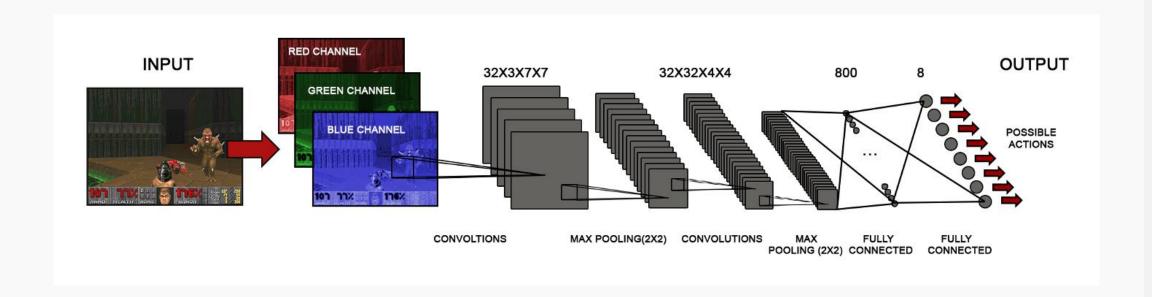


#### Reinforcement Learning





#### Playing Atari with Deep Reinforcement Learning





### Playing Atari with Deep Reinforcement Learning



https://arxiv.org/pdf/1312.5602v1.pdf



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Спасибо за внимание!