



NPTEL ONLINE CERTIFICATION COURSES

Course Name: Deep Learning
Faculty Name: Prof. P. K. Biswas
Department : E & ECE, IIT Kharagpur

Topic

Lecture 54: Semantic Segmentation - II

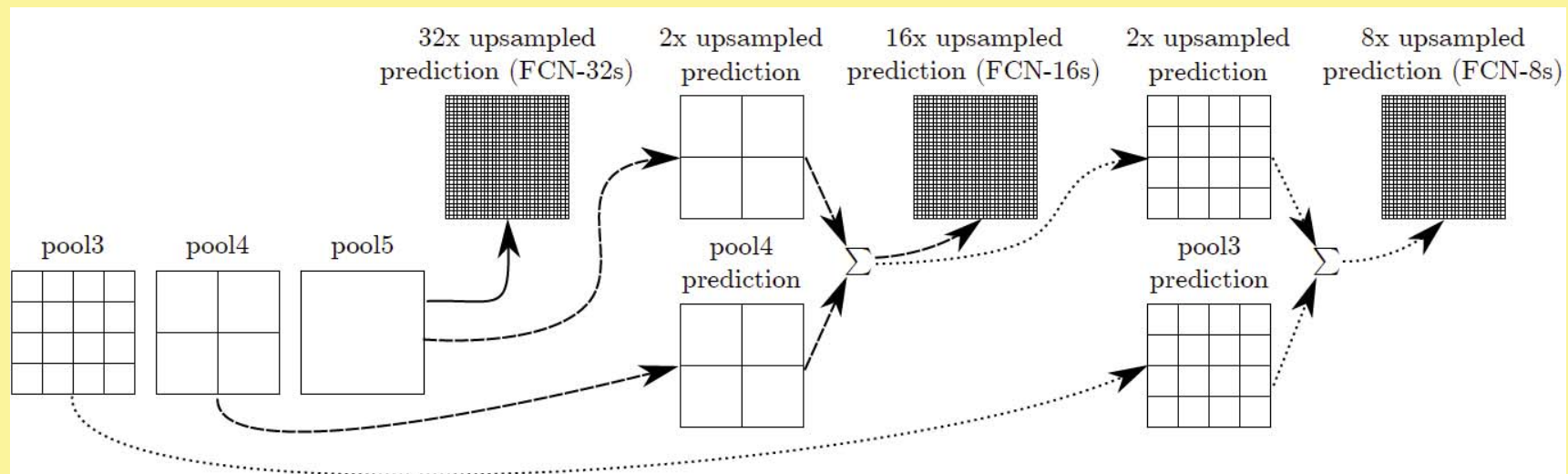
CONCEPTS COVERED

Concepts Covered:

- ☐ Semantic Segmentation
- ☐ Fully Convolutional Network
- ☐ Deconvolutional Network

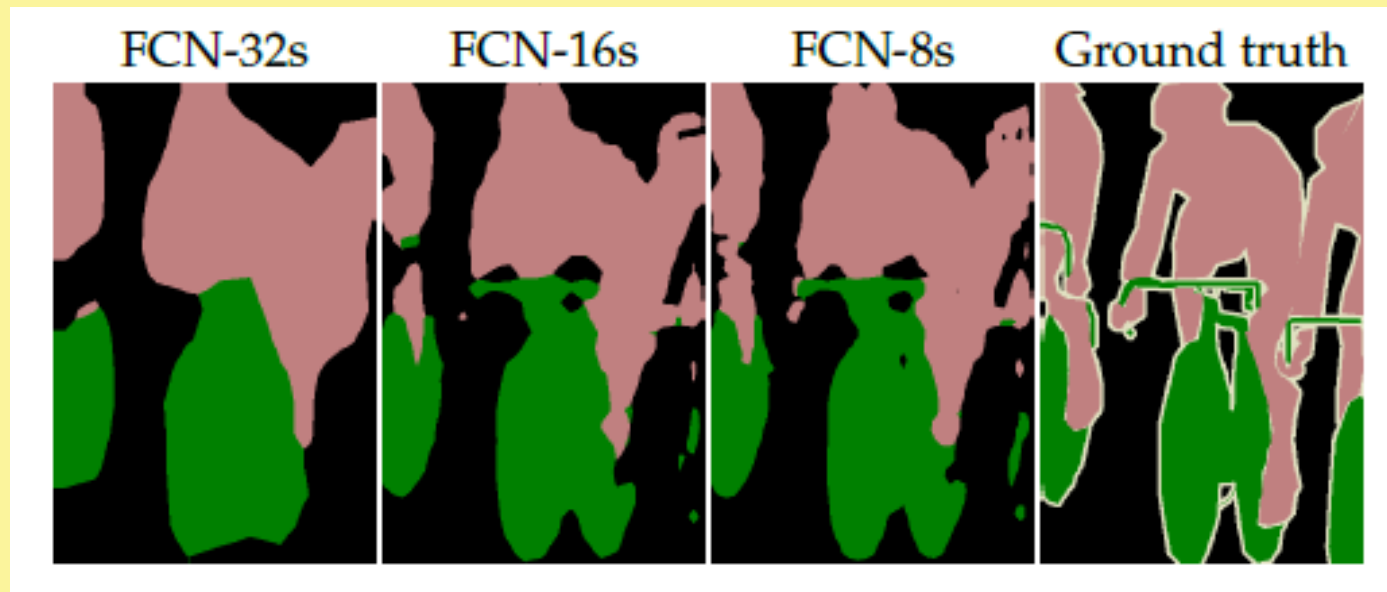


Fully Convolutional Network



Jonathan Long, Evan Shelhamer, Trevor Darrell,
"Fully Convolutional Networks for Semantic
Segmentation", CVPR 2015

Fully Convolutional Network

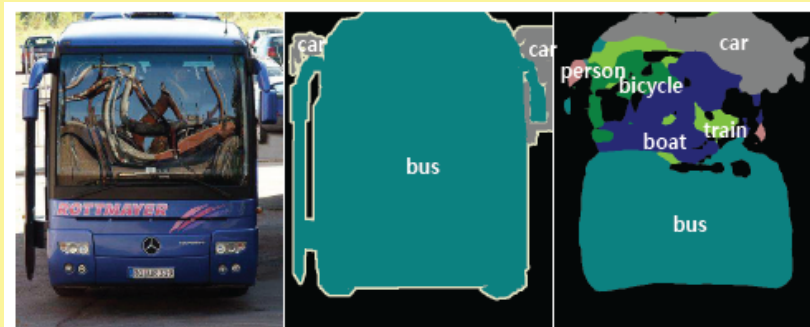


Jonathan Long, Evan Shelhamer, Trevor Darrell,
"Fully Convolutional Networks for Semantic
Segmentation", CVPR 2015

Deconvolution Network for Semantic Segmentation



Deconvolution Network



(a) Inconsistent labels due to large object size

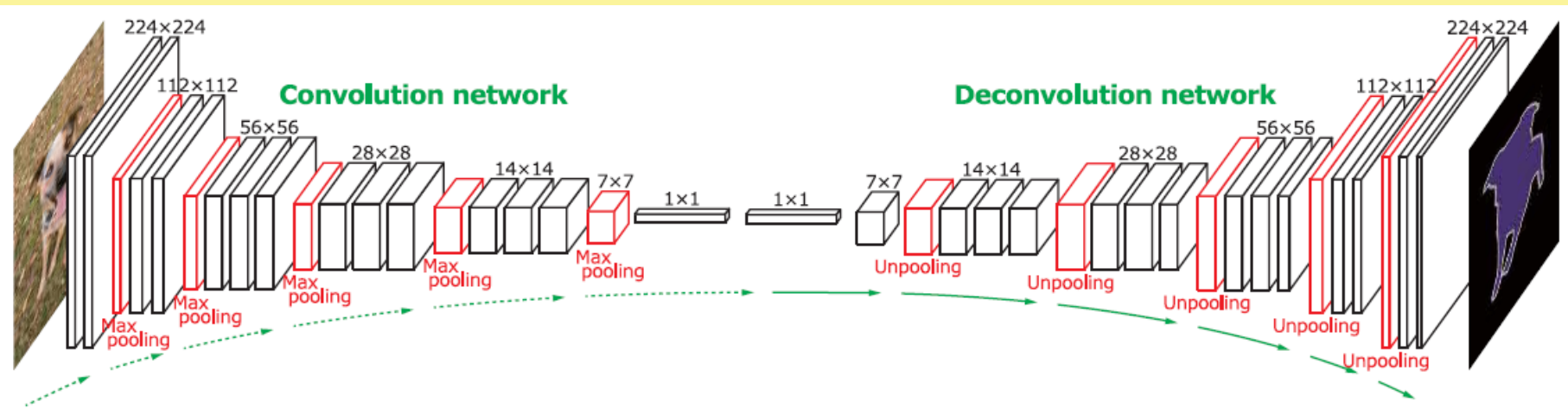


(b) Missing labels due to small object size



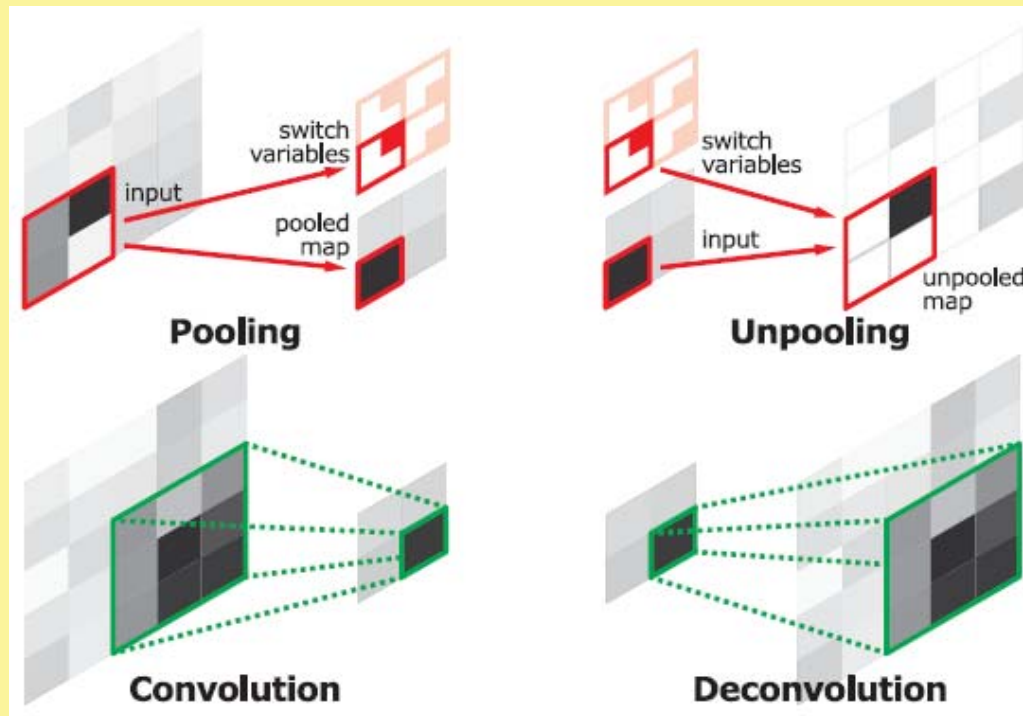
Hyeonwoo Noh, Seunghoon Hong, Bohyung Han,
“Learning Deconvolution Network for Semantic
Segmentation”, ICCV 2015

Deconvolution Network



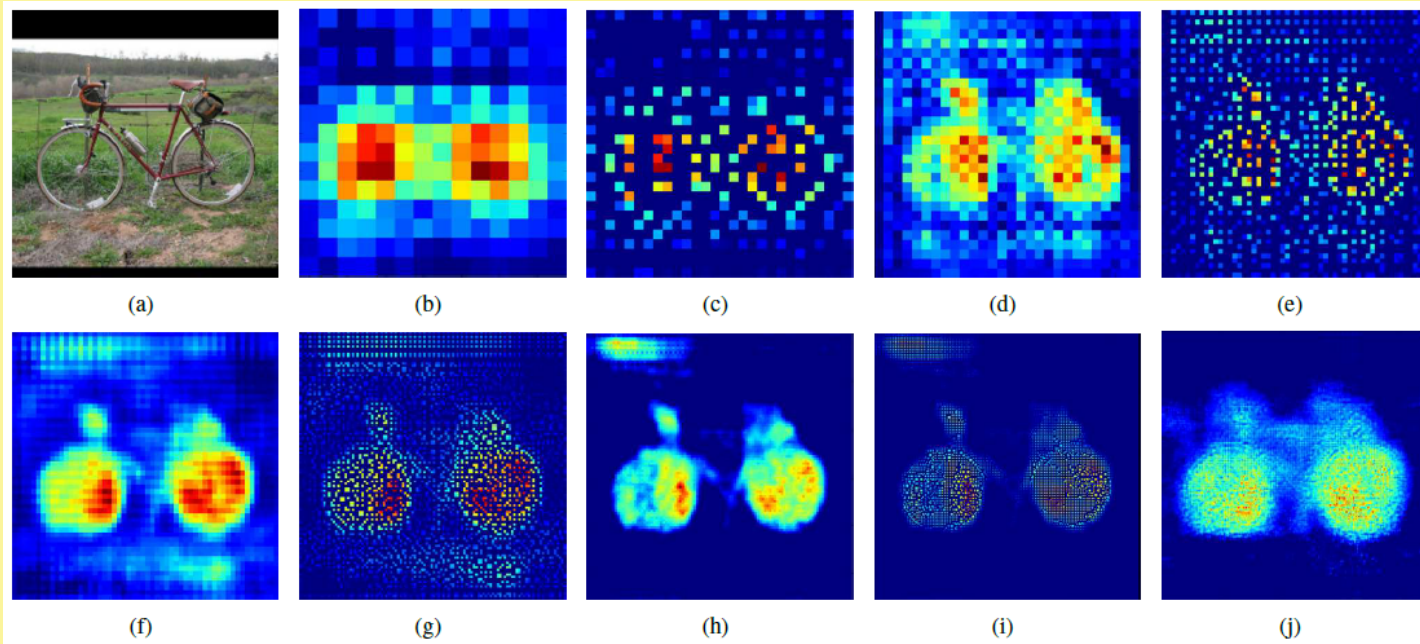
Hyeonwoo Noh, Seunghoon Hong, Bohyung Han,
“Learning Deconvolution Network for Semantic
Segmentation”, ICCV 2015

Deconvolution/Upsampling



Hyeonwoo Noh, Seunghoon Hong, Bohyung Han,
“Learning Deconvolution Network for Semantic
Segmentation”, ICCV 2015

Deconvolution/Upsampling



Hyeonwoo Noh, Seunghoon Hong, Bohyung Han,
"Learning Deconvolution Network for Semantic
Segmentation", ICCV 2015



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*Thank
you*

