



GrowthEngine

增 长 引 擎

OverFeat: Integrated Recognition, Localization and Detection using Convolutional Networks

汇报人：杨子佳



► 自我介绍



公司

北京合力忆捷科技有限公司

2017年7月-2018年2月

增长引擎（北京）信息技术有限公司

3月-至今

方向

计算机视觉



01 | 讲了啥?

02 热身!

03 嘀...嘀嘀...



0

1

讲了啥?



► 主要内容

通过multi-scale ,
sliding window方式,
用来分类, 定位,
检测

在一个卷积网络框
架中, 同时进行3个
任务: 分类, 定位,
检测



0

2



热身

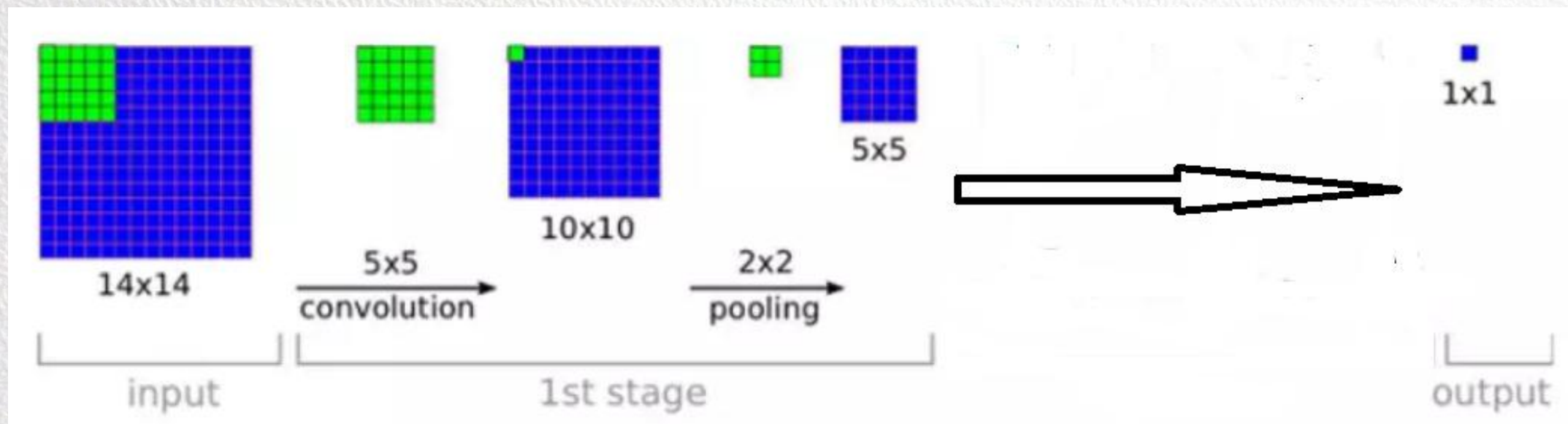
- FCN
- Offset pooling



► FCN (全卷积神经网络)



► FCN (全卷积神经网络)



传统的CNN：全连接层的过程，把5*5大小的图片，展平成为一个一维的向量，进行计算。

FCN：直接采用5*5的卷积核，对一整张图片进行卷积运算。

► FCN (全卷积神经网络)

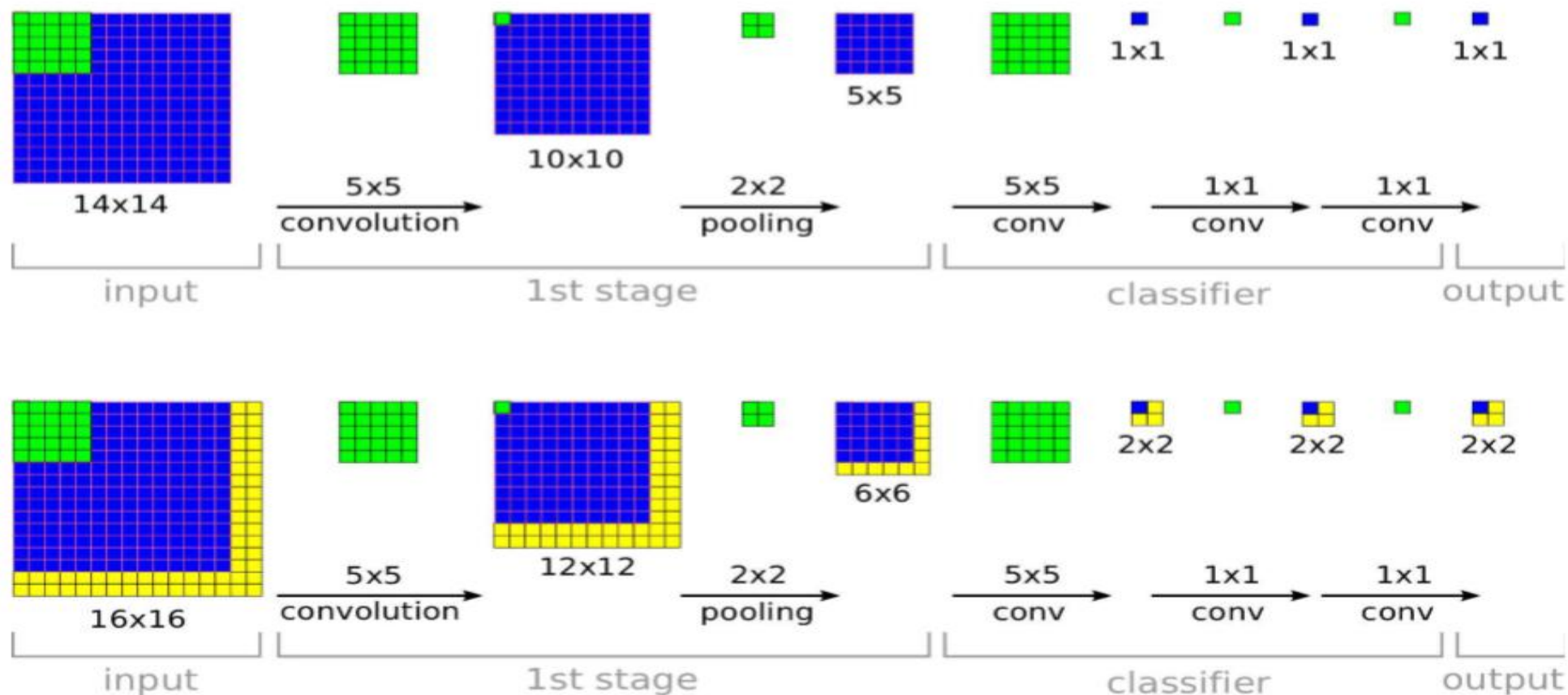
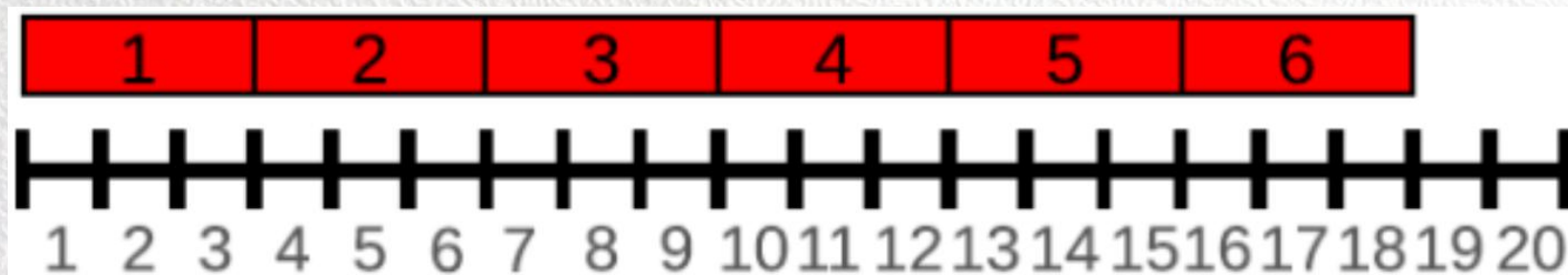


Figure 5: **The efficiency of ConvNets for detection.** During training, a ConvNet produces only a single spatial output (top). But when applied at test time over a larger image, it produces a spatial output map, e.g. 2x2 (bottom). Since all layers are applied convolutionally, the extra computation required for the larger image is limited to the yellow regions. This diagram omits the feature dimension for simplicity.

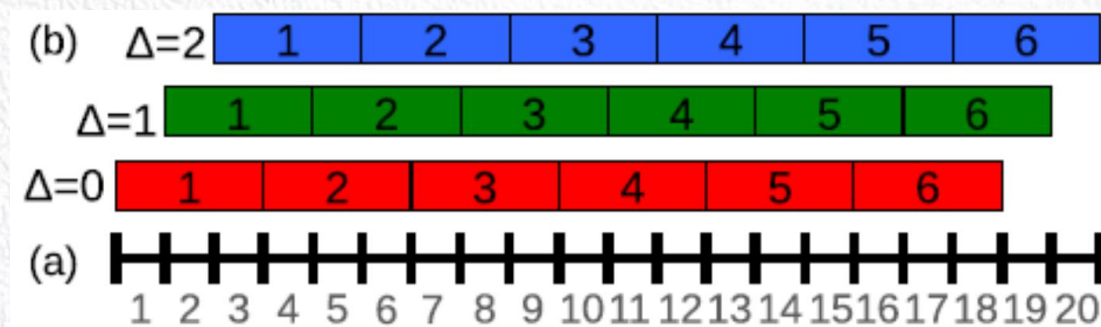
► Offset pooling



A、 $\Delta=0$ 分组: [1,2,3], [4,5,6],, [16,17,18]

B、 $\Delta=1$ 分组: [2,3,4], [5,6,7],, [17,18,19]

C、 $\Delta=2$ 分组: [3,4,5], [6,7,8],, [18,19,20]





论文内容介绍

https://blog.csdn.net/qq_20265187/article/details/84981127



The background features several geometric shapes: squares and triangles of various sizes and orientations, some solid and some outlined. These shapes are scattered across the page, with some appearing in the corners and others near the central text. The overall aesthetic is minimalist and modern.

感谢聆听

