


# Downsampling



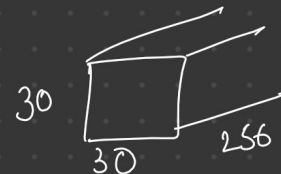
www.krishnaik.in

Downsampling — process of reducing the spatial resolution of an image or feature map.

Averaging — o/p determined by formula

Max-pooling — 

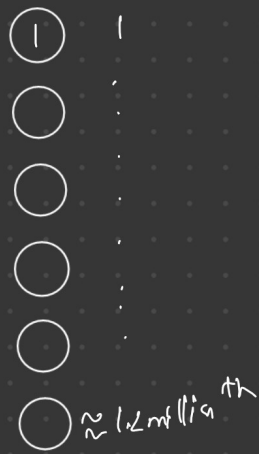
Global Average pooling — 1 pixel value



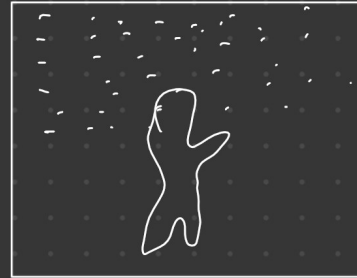
Example!

640 x 640 (RGB)

→ 640 x 640 x 3 → 1.2 million pixels ≈



→ High resolution, more computation  
 → overfit, too many details



- efficient: faster training & inference
- overfit: fewer parameters to prevent learning noise
- compact representation, handle large amount of image on GPU.

