Resnet Architecture

- Owon first place in 128VRC-2015
- O won diret place in Imagenet, Imagenet detection
- O Coco Udetection, coco segmentation

O The gradient propagation → Chain Rule (xxxx)

1

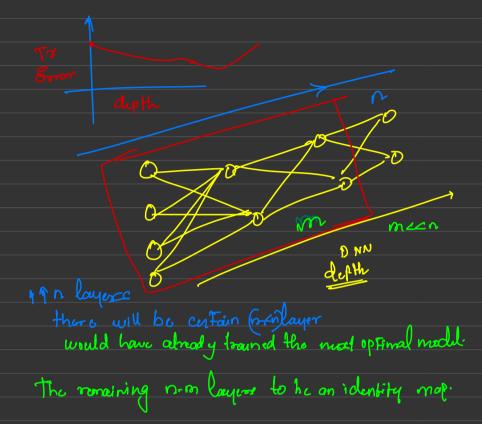
Explosion

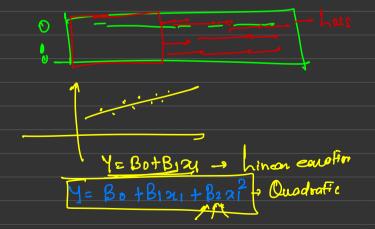
Vanishing

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- O Batch Normalization, Rehu, Xavior (Init)
- 1 Models despor





Respect architecture

if this layor preds to be redundant

Low

Back ward Propagation

gradient alive (Vanishing graduat

problem).

n --- Conv20 -0 2/2, y/2 d -- Congro 2/2, y/2d

Residual connection (Skip connection)

Code understanding

O
Conv20 (16, 3x3, 1x1 padding: some) inputs — X BN- Act)- (Residual Block) (224x224x3) (224x224x16)
(124×224×3) (124×2×4×16)
Residual Block (16)
Y= Conv20 (16,18,3), (x), padding='somi') (2) Y= BW(4)
4 = Act(4) (5) \$22, x254,816)
4 = Conver (16, (2x3), (x1), Somi)(4) 4 = Bn (4) = 224x224x16
y= Add (y, x)) down sample False
Consu 20 BN. Act, Comv2v, BN
(224x224x H) (filters=32)
2 Conv2D → BN → Act - Conv2D) → BN 1/2×1/2×32
S. J. T. M. (32, (22)) [12x 12x32]
Face of FM