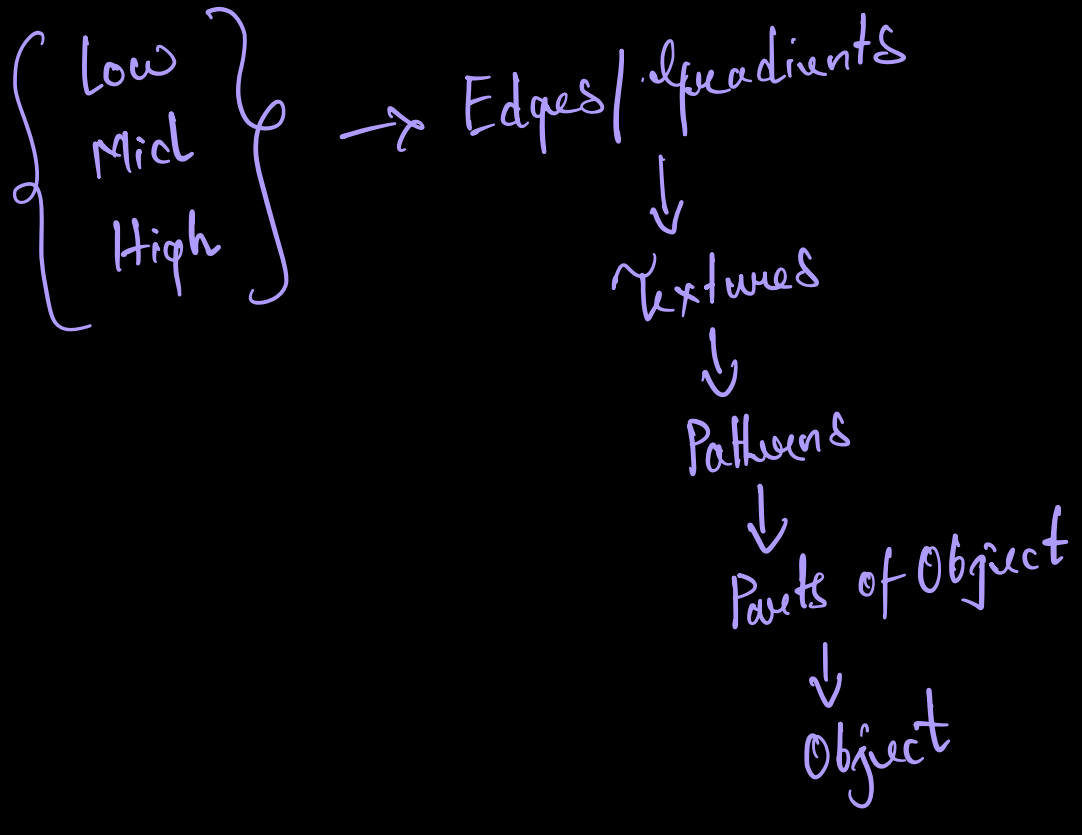
Today's Agenda

1) AlexNet
2) VGGNet

1X1 Convolution

Pointwise Convolution



{30x30x3}

$(3 \times 3), 32 = 28 \times 28 \times 32$

$(3 \times 3), 64 = 26 \times 26 \times 64$

$(3 \times 3), 128 = 24 \times 24 \times 128$

$(3 \times 3), 256 = 22 \times 22 \times 256$

How to decrease the Channels ?

① Option :- $(3 \times 3), 64$

② Option :- (1×1) → No Feature Extraction

$(1 \times 1), 32$

$= 22 \times 22 \times 32$

Implementation of CNN Architectures

1) Pre Trained Model

2) Transfer learning

↳ Your Own Data

VGG16

↳ Pre Trained (ImageNet)

Diverse Features

↳ learning

(Most of the times) 3 classes

Generic Dataset

① Use Few Pre Trained weights (Most of times)

weight

20 layers

15 → Frozen

5 → Train

Parent Model ⟶ Child Model

② Train from Scratch

Layers - 20

All 20 layers, I will train.

Transfers → Architecture
Weights

① Pre Trained

② Transfer learning