

05-01-2025 (Agenda)

CNN with pytorch \rightarrow Hand written Digit Recognition

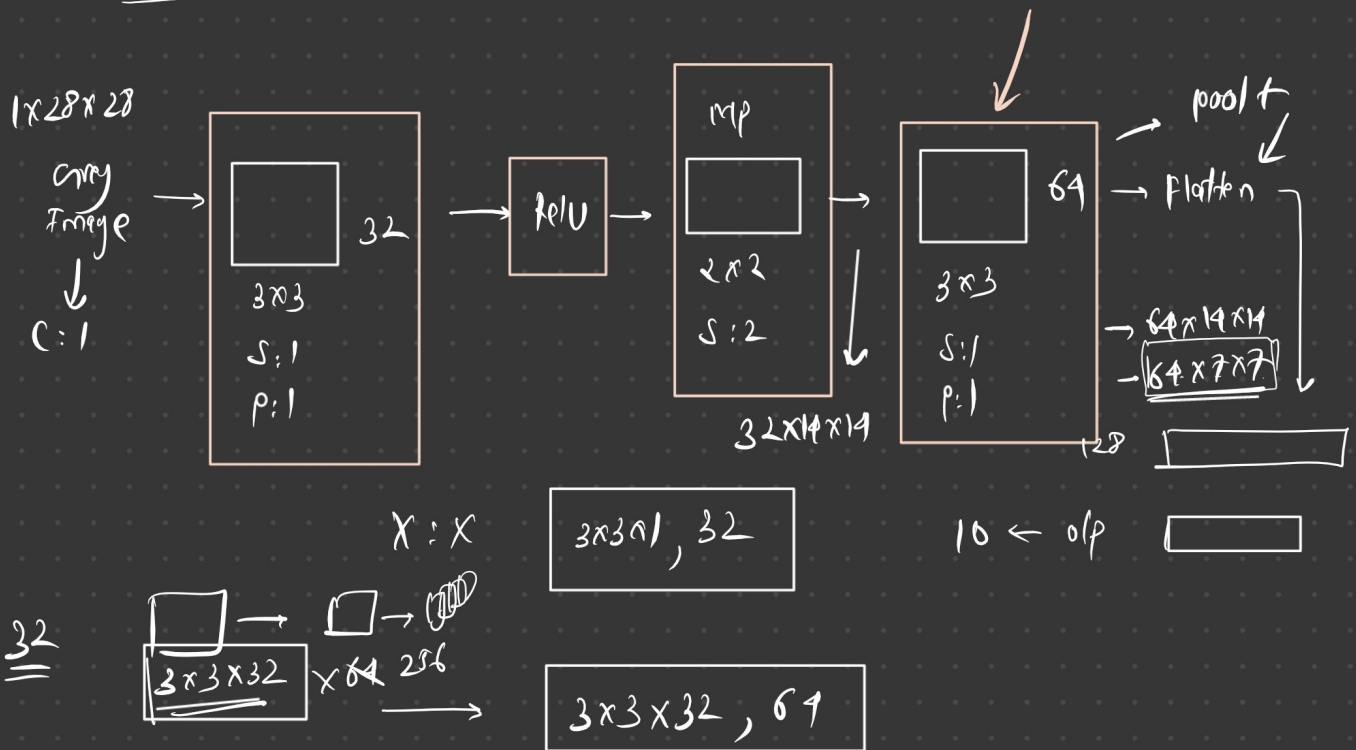
Resnet34 pytorch \rightarrow

Dense Net \rightarrow

Mobile Net \rightarrow

Project Discussion \rightarrow

CNN



1	2	3
4	5	6
7	8	9

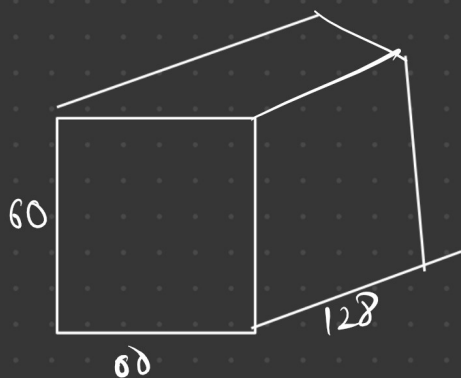
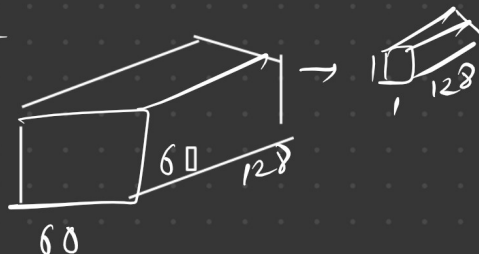
3x3

$2 \times 2 \rightarrow 1 \rightarrow$
 $\rightarrow \text{max pool}$

5	6
8	9

2x2

1 $\frac{1}{128}$



$1 \times 1 \times 128$

\rightarrow



$60 \times 60 \times 1$

\rightarrow Adaptive $\frac{1}{128}$ \rightarrow \rightarrow $1 \times 1 \times 128$

$1 \times 1 \times 128$

Resnet ~ 152
 ~ 34

→ Project → Vision based aid for visual impairment

→ face emotion analysis —

→ face recognition —

→ Indian Driving dataset + person + pole + side walk + Road

→ Automatic face blur system —

→ Number plate blur system. —

Dataset → Indian Driving dataset

→ vehicle → cycle, motorcycle, Trucks,
Car, Buses. → Number plate

→ poles → electricity poles
→ traffic lights

→ person →

→ road → ^{footpath} / sidewalk, roads

→ person → face

→ normal, senior, happy
neutral angry

→ Community based dataset → quality

→ Tools

→ Onedrive

→ automate

p1 → record video → 1 hour, 2 days →
 → preprocessing → blur, 1 fps / 10 fps,

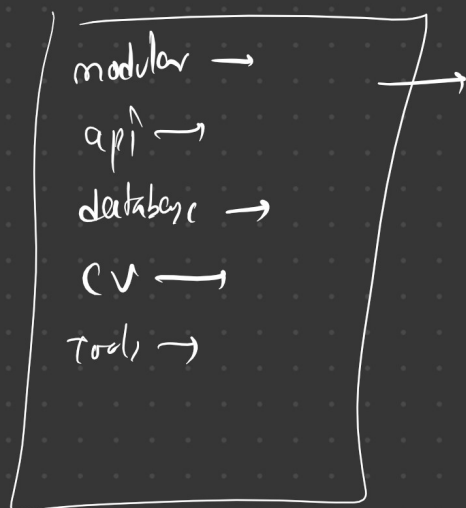
→ 500 labelled images ←

reflect →



masking, cropping, blur, noisy, occlusion, illumination

500 x 110 →



CVAT →

→ roboflow
→ Image

video →

free
CVAT

roboflow →

roboflow
↓
download
↓

500

mp4 → fps 2 fps

2 images

80 min →

60 x 80 → 3600 → 2

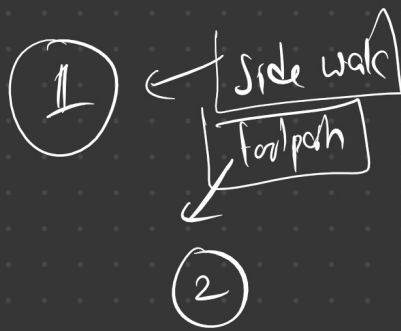
7200 →

3600 →

delete
delete

→ folder →

10



>110 →

per → pole/trall? → 1
→ car → 2

per → pole/trall? → 2
fare → 1

110

final merge

script → pole #1

