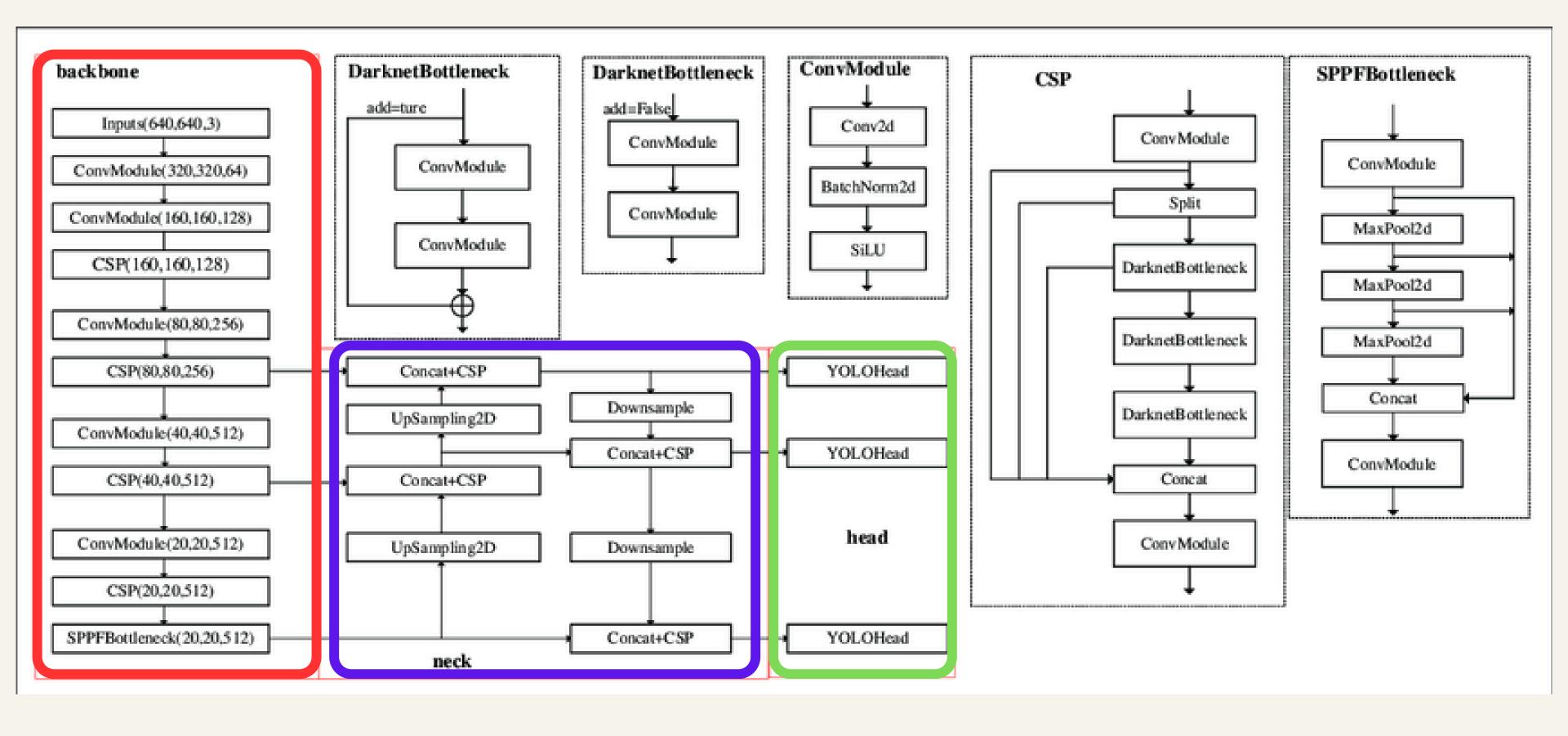
YOLO

(You Only Look Once)

Presented By: Thanh Dang

YOLO v8 Architecture



Object Detection

Models trained on **COCO**, which include **80 pre-trained classes**

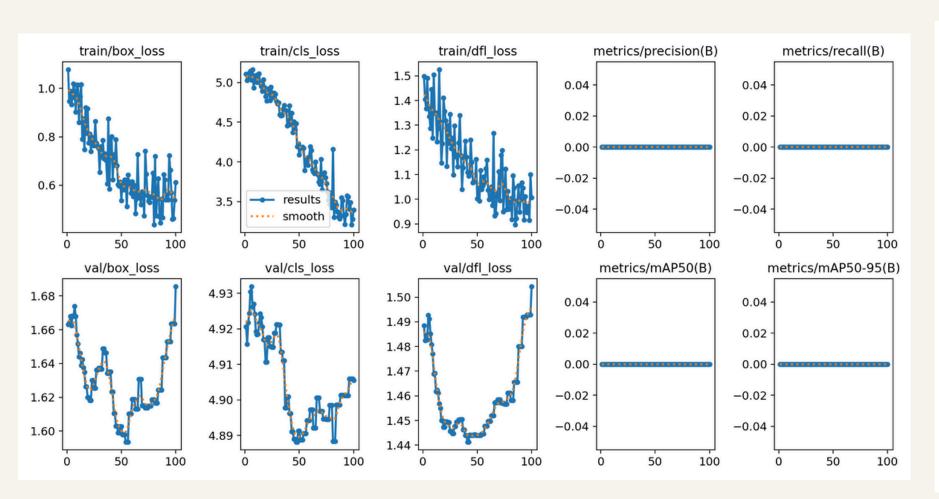
• • • • •	Model	Speed	Layers	Parameters	GFLOPs
nano	YOLOv8n	191.1ms	168	3151904	8.7
small	YOLOv8s	308.4ms	168	11156544	28.6
medium	YOLOv8m	1114.8ms	218	25886080	78.9
large	YOLOv8l	1303.4ms	268	43668288	165.2
Xtra large	YOLOv8x	2070.3ms	268	68200608	257.8

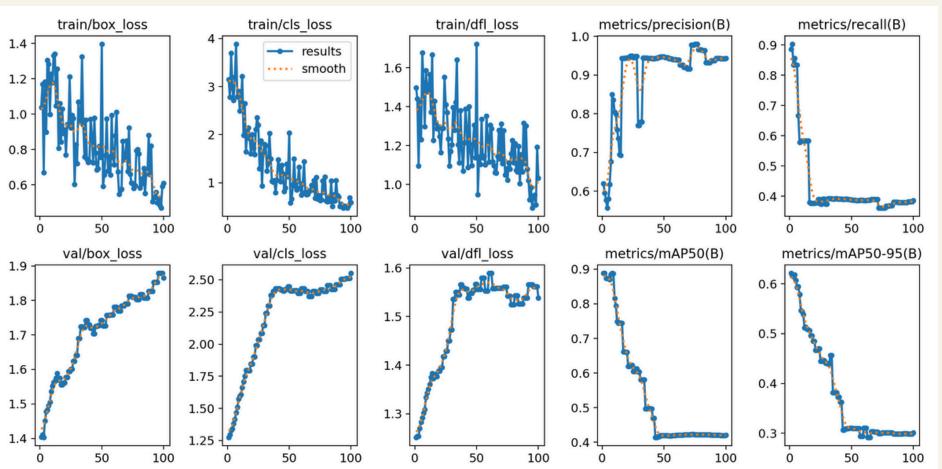
Environment: Python-3.9.13 torch-2.3.1+cpu CPU (12th Gen Intel Core(TM) i5-1240P) GFLOPs: Giga Floating Point Operations Per Second

CROSS EVALUATE

Train model with dataset COCO, model pretrain OpenImagev7

YOLO V8 NANO





Model pretrained OpenImagev7

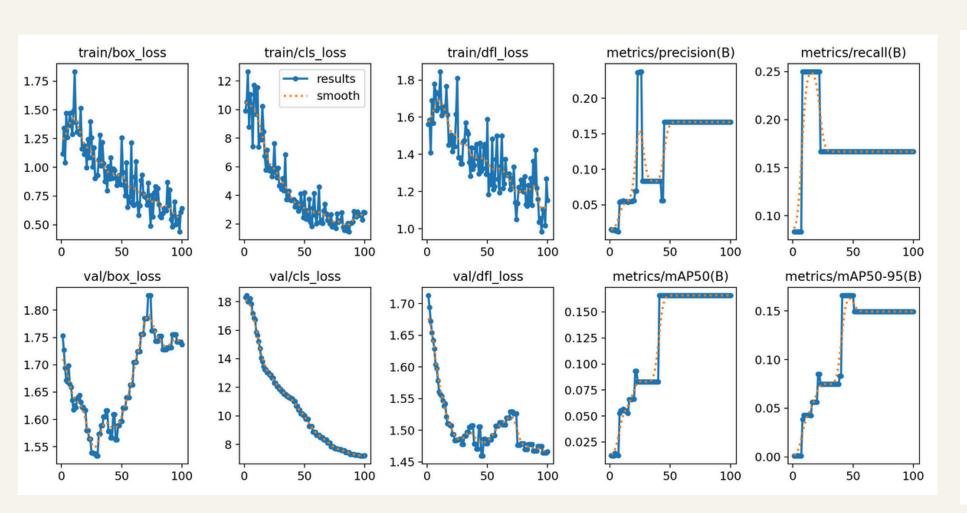
100 epochs completed in 1m51s

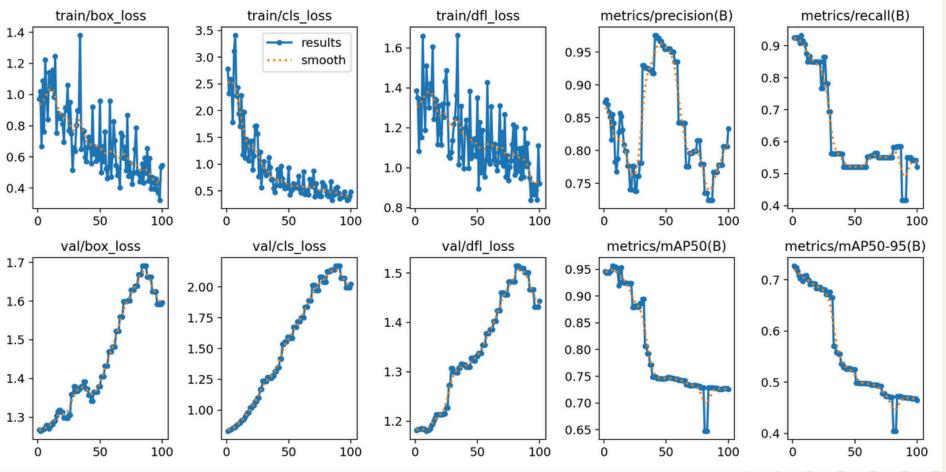
Speed: 5.8ms inference per image

Model pretrained COCO

100 epochs completed in 1m51s Speed: 3.6ms inference per image

YOLO V8 SMALL





Model pretrained OpenImagev7

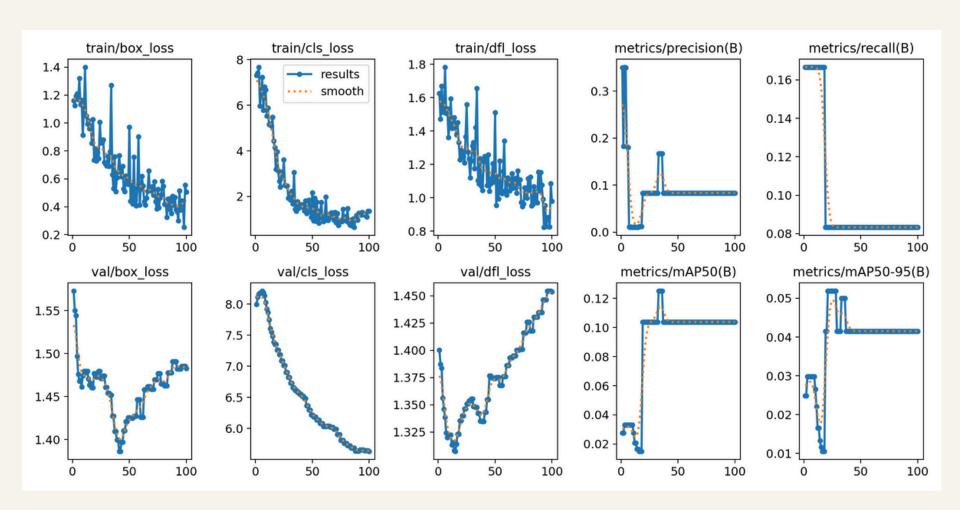
100 epochs completed in 3m32s

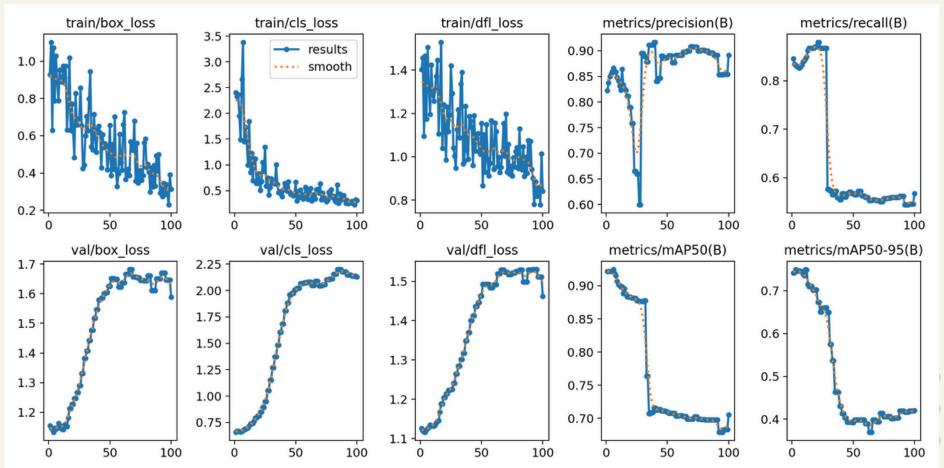
Speed:7.1ms inference per image

Model pretrained COCO

100 epochs completed in 2m2s Speed: 7.2ms inference per image







Model pretrained OpenImagev7

100 epochs completed in 12m10s

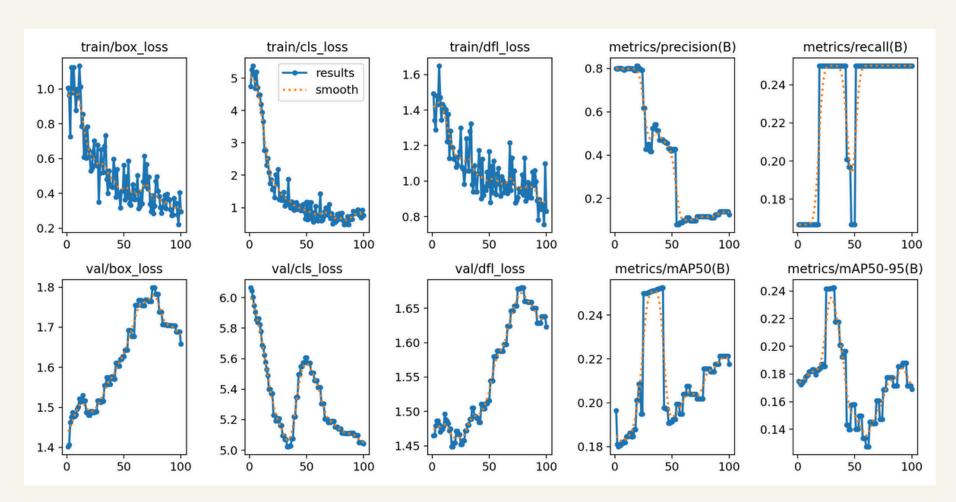
Speed: 15.3ms inference per image

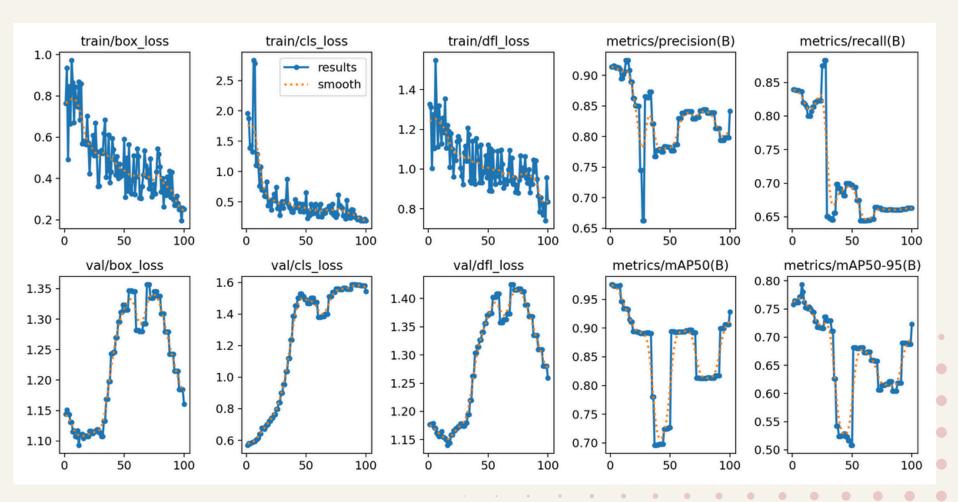
Model pretrained COCO

100 epochs completed in 4m55s

Speed: 16.2ms inference per image

YOLO V8 LARGE





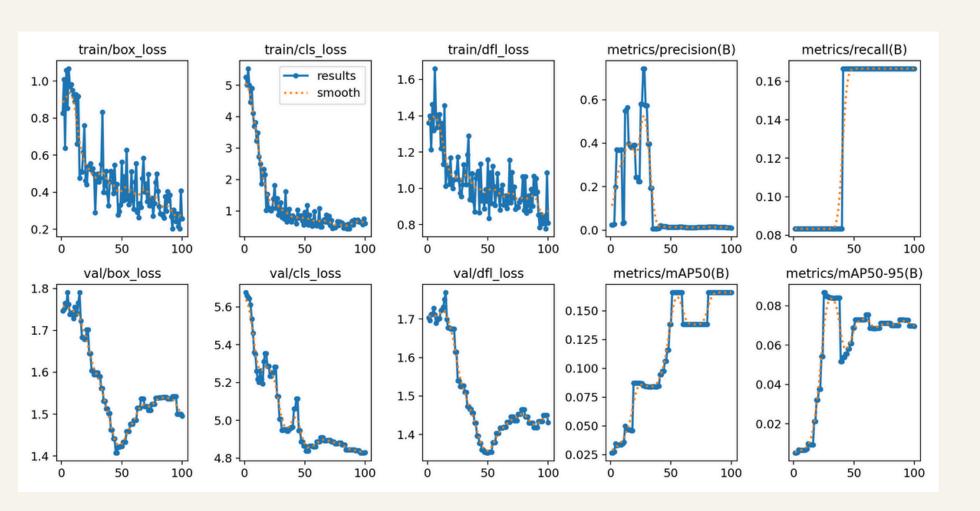
Model pretrained OpenImagev7
100 epochs completed in 54m36s
Speed: 25.1ms inference per image

Speed: 24.4ms inference per image

Model pretrained COCO

100 epochs completed in 12m21s

YOLO V8 XTRA LARGE



Model pretrained OpenImagev7

100 epochs completed in 13m30s

Speed: 38.4ms inference per image

Model pretrained COCO

100 epochs completed in

Speed: inference per image

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THANKYOU

Presented By: Adeline Palmerston