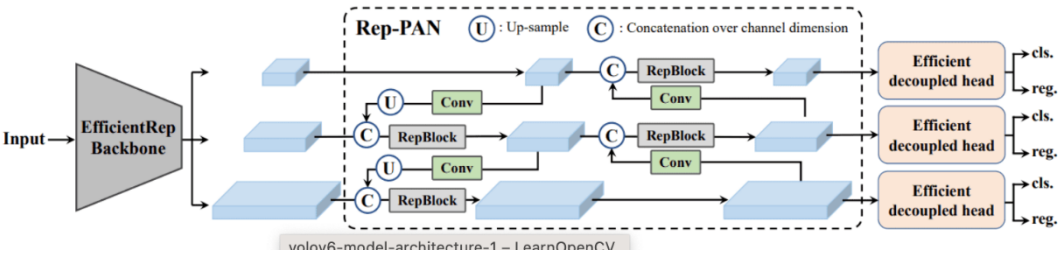


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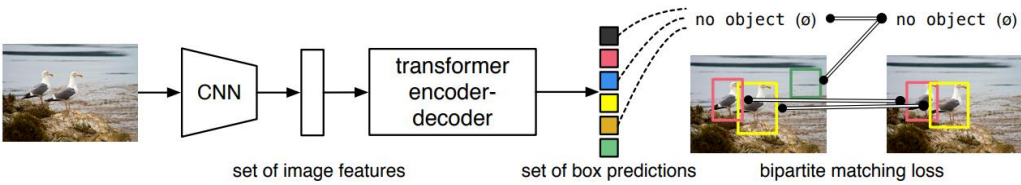
1.

(a)

CNN



Detr



2.

	Map50:95	Map75	Map50
Detr	0.434	0.423	0.759
Yolov6	0.481	0.487	0.789

Detr

Average Precision (AP) @[ IoU=0.50:0.95   area= all   maxDets=100 ]	= 0.434
Average Precision (AP) @[ IoU=0.50   area= all   maxDets=100 ]	= 0.759
Average Precision (AP) @[ IoU=0.75   area= all   maxDets=100 ]	= 0.423
Average Precision (AP) @[ IoU=0.50:0.95   area= small   maxDets=100 ]	= 0.123

Yolov6

Average Precision (AP) @[ IoU=0.50:0.95   area= all   maxDets=100 ]	= 0.481
Average Precision (AP) @[ IoU=0.50   area= all   maxDets=100 ]	= 0.789
Average Precision (AP) @[ IoU=0.75   area= all   maxDets=100 ]	= 0.487
Average Precision (AP) @[ IoU=0.50:0.95   area= small   maxDets=100 ]	= 0.156

3.

	YOLO v6	DETR
Architecture	CNN	CNN + transformer
Augmentation	<code>dict(     hsv_h=0.015,</code>	image crop, image flip, image scale, color jitter

	<pre> hsv_s=0.7, hsv_v=0.4, degrees=0.0, translate=0.1, scale=0.5, shear=0.0, flipud=0.0, fliplr=0.5, mosaic=1.0, mixup=0.0, ) </pre>	
Loss function	classification loss (varifocal loss), detection loss (distribution focal loss)	classification loss (binary cross-entropy), bounding box regression loss (L1 + generalized IoU (GIoU) losses)
Cross validation	Yes	Yes

4.

Yolov6



Detr

