

## Supplementary materials

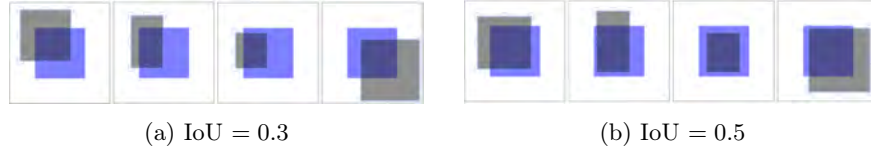


Fig. S1: 2D illustrations of IoU at thresholds 0.3 and 0.5, with the blue square representing the GT and the gray one representing a predicted bounding box. Notably, some authors [1,2] have used  $t_{IoU}$  as low as 0.1. Figure generated using the [visualization tool](#) by Ibrahim Muhammad.

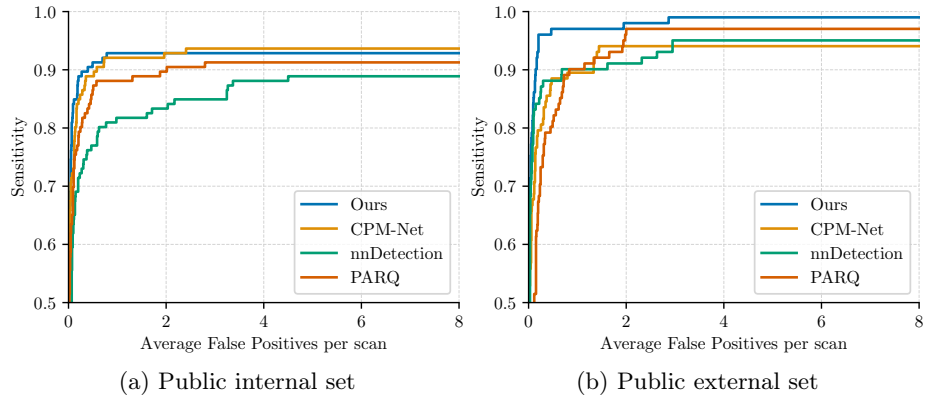


Fig. S2: **Se@FPr** curves at  $t_{IoU} = 0.3$  computed for our method and the three detection baselines.

Table S1: Detection performance under the harder setting of  $t_{IoU} = 0.5$ , with  $t_+$  specified for each model.  $t_{IoM}$  is used for the private dataset. All settings, including model weights, confidence thresholds, and data are the same as in the main table.

Dataset	Model	$t_+$	Se $\uparrow$					P-Se $\uparrow$	FPr $\downarrow$	P-Sp $\uparrow$
			All	Small	Med.	Large				
Pub. In.	PARQ	.9	69.8%	55.2%	73.3%	85.7%	67/102	1.0	17/50	
	nnDet.	.6	65.1%	48.3%	70.0%	71.4%	71/102	1.34	11/50	
	CPM-Net	.8	83.3%	65.5%	<b>90.0%</b>	71.4%	81/102	<b>0.47</b>	32/50	
	<i>Ours</i>	.95	<b>84.9%</b>	<b>72.4%</b>	88.9%	<b>85.7%</b>	<b>85/102</b>	0.63	<b>33/50</b>	
Pub. Ex.	PARQ	.9	67.3%	42.9%	67.1%	92.9%	62/92	0.70	31/46	
	nnDet.	.6	71.3%	14.3%	76.7%	<b>100%</b>	67/92	1.51	10/46	
	CPM-Net	.8	72.3%	<b>35.7%</b>	<b>83.6%</b>	50.0%	65/92	<b>0.55</b>	<b>35/46</b>	
	<i>Ours</i>	.95	<b>77.2%</b>	<b>35.7%</b>	80.8%	<b>100%</b>	<b>70/92</b>	0.7	33/46	
Private	nnDet.	.9	62.1%	N/A	N/A	N/A	22/38	0.73	N/A	
	CPM-Net	.8	65.5%	N/A	N/A	N/A	22/38	<b>0.63</b>	N/A	
	<i>Ours</i>	.95	<b>72.4%</b>	N/A	N/A	N/A	<b>24/38</b>	0.89	N/A	

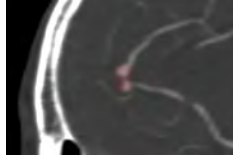


Fig. S3: Visualization of one of our model’s outputs. Two aneurysms were detected within a single bounding box (in red). Due to the small size of the bottom aneurysm, the IoU is under 0.3 and thus it is categorized as a false negative.

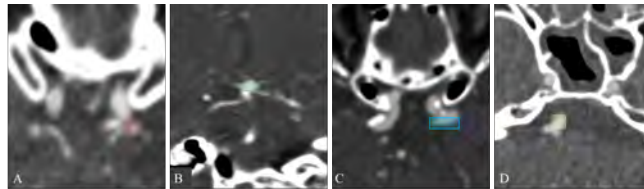


Fig. S4: Visualization of additional outputs of interest from our model: incorrect annotation of ground truth (A, B), false negative (C), false positive (D). A. Tiny left supra-clinoid ICA aneurysm was not annotated on ground truth but detected by our model. B. Basilar confluence incorrectly annotated as aneurysm in the GT. This was not detected as aneurysm on our model. C. Broad-based left supra-clinoid ICA aneurysm was missed. D. Vertebrobasilar confluence was incorrectly detected as aneurysm. (ICA: internal carotid artery).