Table 1. Comparisons of 2D Object Detection Results in BEV Perspective on different methods with a single model on the KITTI val set. We report results of pedestrians with IOU= 0.5. **Bolded black** represents state-of-the-art performance, and **bolded gray** represents the second-best performance method.

Methods	Class	Car AP(IoU =0.7)			Pedestrian AP (IoU =0.5)			mAP↑
		Easy	Mod	Hard	Easy	Mod	Hard	
F-PointNet	Point	88.70	84.00	75.33	58.09	50.22	47.20	67.26
AVOD		86.80	85.44	77.73	42.51	35.24	33.97	60.28
AVOD-FPN		88.53	83.79	77.90	50.66	44.75	40.83	64.41
SECOND		88.07	79.37	77.95	67.49	65.59	62.75	73.54
VoxelNet		89.35	79.26	77.39	46.13	40.74	38.11	61.83
MV3D	View	86.02	76.90	68.49	-	-	-	-
PIXOR		86.79	80.75	76.60	-	-	-	-
PIXOR++		89.38	83.70	77.97	-	-	-	-
LaserNet		79.19	74.52	68.45	65.75	64.24	61.93	69.01
RangeRCNN		**92.15**	88.40	85.74	-	-	-	-
Pointillars		88.35	86.10	79.83	66.74	61.28	58.83	73.52
Complex-YOLO		85.89	77.40	77.33	46.08	45.90	44.20	62.80
Complex-YOLOv4		90.13	**90.15**	**90.15**	**69.38**	**71.55**	**73.55**	80.82
Our method		90.12	**89.98**	**89.99**	**70.95**	**73.71**	**75.60**	**81.73**