

## 7 Supplemental Materials

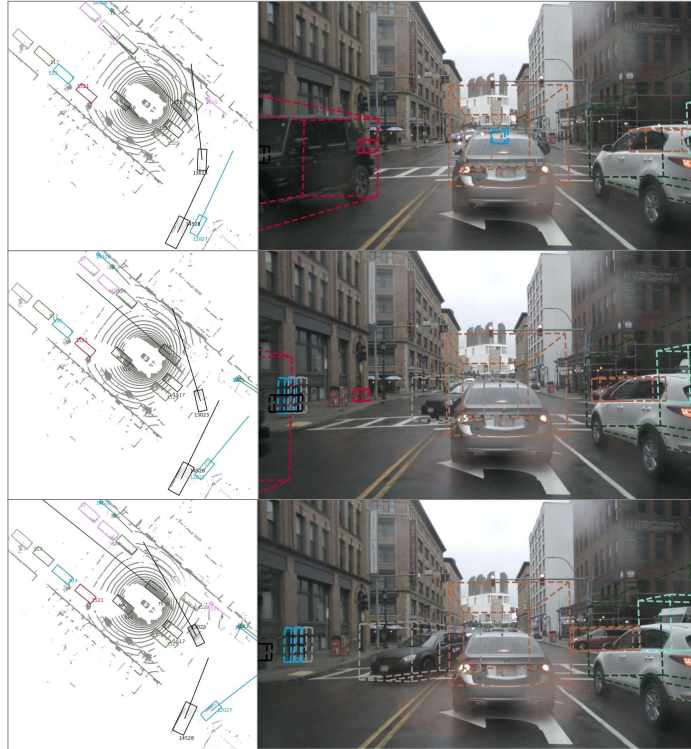
### 7.1 Qualitative Results

Based on Fig. 5, we see excellent tracking performance of JDT3D. Properly detected tracks can maintain excellent consistency, even through difficult scenarios like occlusion. The visualizations also show the model’s ability to predict the future trajectories of tracks in the scene properly.

A video of the visualizations can be found at:  
<https://youtu.be/yv9vrpCSqR8?si=Y3pK6todbxqUIUhV>

### 7.2 Full Results

We include a full table of class-specific metrics on both the nuScenes test and validation sets in Tab. 10 and Tab. 11, respectively.



**Fig. 5:** Qualitative results of JDT3D on a scene (consecutive frames from top to bottom) from nuScenes test set. For visual understanding, we show 3D bounding boxes projected into the BEV point cloud and the centre front camera image. Each bounding box has a unique track ID and is coloured accordingly. Line segments represent predicted future trajectories.

**Table 10:** Full results by class for JDT3D evaluated on the nuScenes test set.

Class	AMOTA	AMOTP	RECALL	MOTAR	MOTA	MOTP	MT	ML	FAF	TP	FP	FN	IDS	FRAG	TID	LGD
Bicycle	0.262	1.104	0.321	0.675	0.217	0.222	43	124	16.3	702	228	1484	0	3	0.68	0.80
Bus	0.674	0.755	0.636	0.909	0.578	0.363	56	35	7.1	1082	99	619	0	1	0.64	0.71
Car	0.751	0.613	0.795	0.901	0.714	0.255	2957	845	92.3	54352	5403	14042	124	210	0.60	1.00
Motorcycle	0.495	0.800	0.456	0.885	0.403	0.228	47	98	8.3	886	102	1058	1	3	0.56	0.80
Pedestrian	0.715	0.702	0.753	0.867	0.650	0.318	1284	449	66.4	25474	3379	8409	127	151	0.65	1.03
Trailer	0.616	0.906	0.631	0.810	0.511	0.507	77	57	27.4	1619	308	947	0	11	1.15	1.41
Truck	0.504	0.979	0.611	0.691	0.422	0.351	210	183	39.9	5277	1633	3360	2	8	1.16	1.69

**Table 11:** Full results by class for JDT3D evaluated on the nuScenes validation set.

Class	AMOTA	AMOTP	Recall	MOTAR	MOTA	MOTP	MT	ML	FAF	TP	FP	FN	IDS	FRAG	TID	LGD
Bicycle	0.3981	0.860	0.4711	0.6876	0.3236	0.1813	46	92	18.6	938	293	1054	1	1	1.285	1.354
Bus	0.8117	0.6328	0.8229	0.9216	0.7571	0.4113	75	17	8.5	1735	136	374	3	14	0.5652	1.114
Car	0.7827	0.5686	0.7944	0.9308	0.7386	0.2514	2361	746	55.76	46276	3204	11992	49	106	0.5708	0.8826
Motorcycle	0.6376	0.6847	0.6657	0.7673	0.5104	0.2857	66	46	20.21	1315	306	661	1	2	1.201	1.316
Pedestrian	0.7357	0.6806	0.7763	0.862	0.6662	0.3296	1044	373	59.47	19649	2712	5688	86	90	0.6434	0.9963
Trailer	0.4511	1.124	0.4969	0.7535	0.3744	0.5834	51	74	26.88	1205	297	1220	0	8	0.7623	1.287
Truck	0.5321	0.9763	0.6556	0.7204	0.4716	0.3652	252	166	46.09	6317	1766	3323	10	25	1.066	1.763