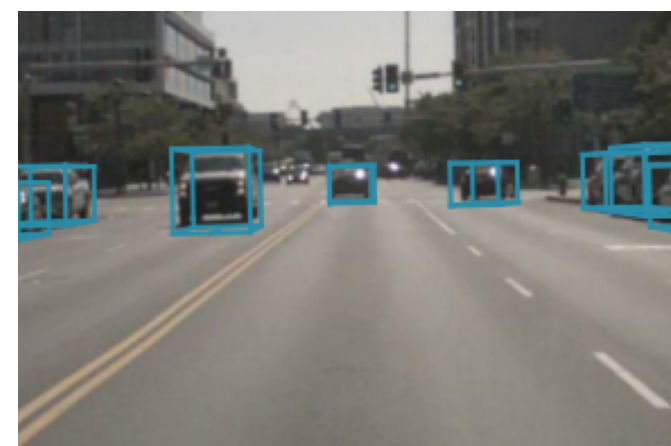


(a) Ground truth in Verified nuScenes

Far field



Clutter



(b) LiDAR-based detector (CenterPoint)

Poor in far-field

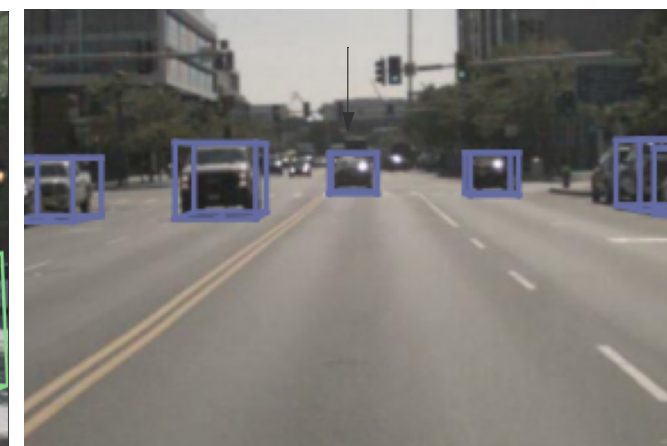


Good in clutter



(c) Image-based detector (FCOS3D)

Good in far-field

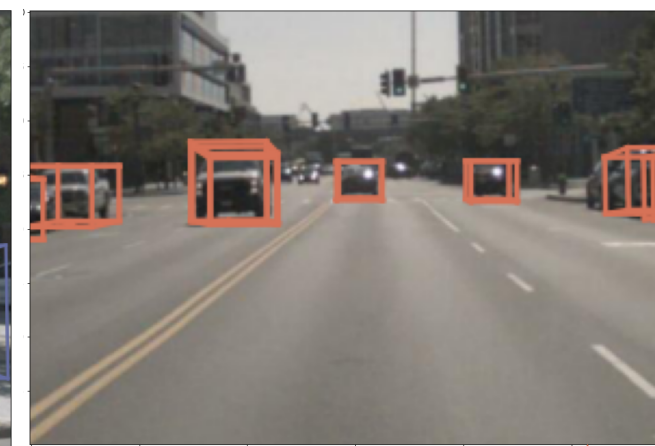


Poor in clutter



(d) Multimodal fusion (Ours)

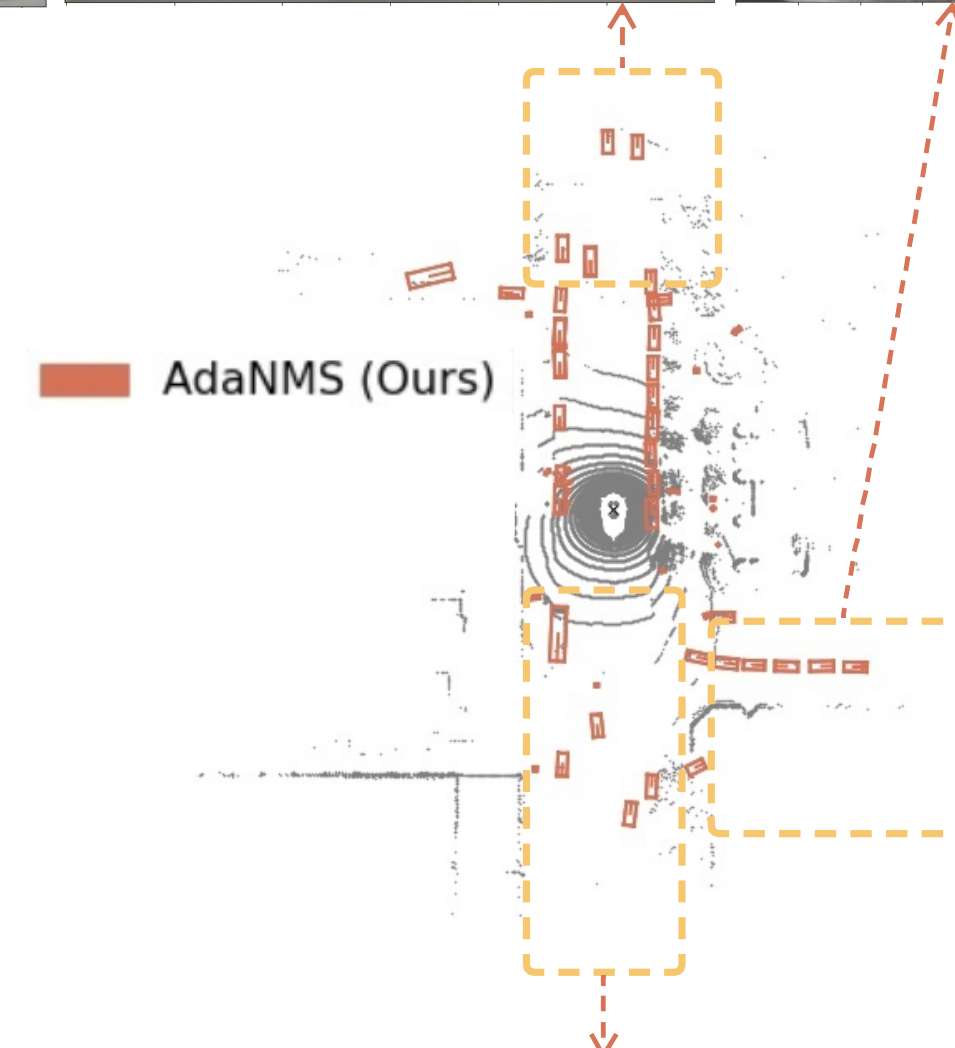
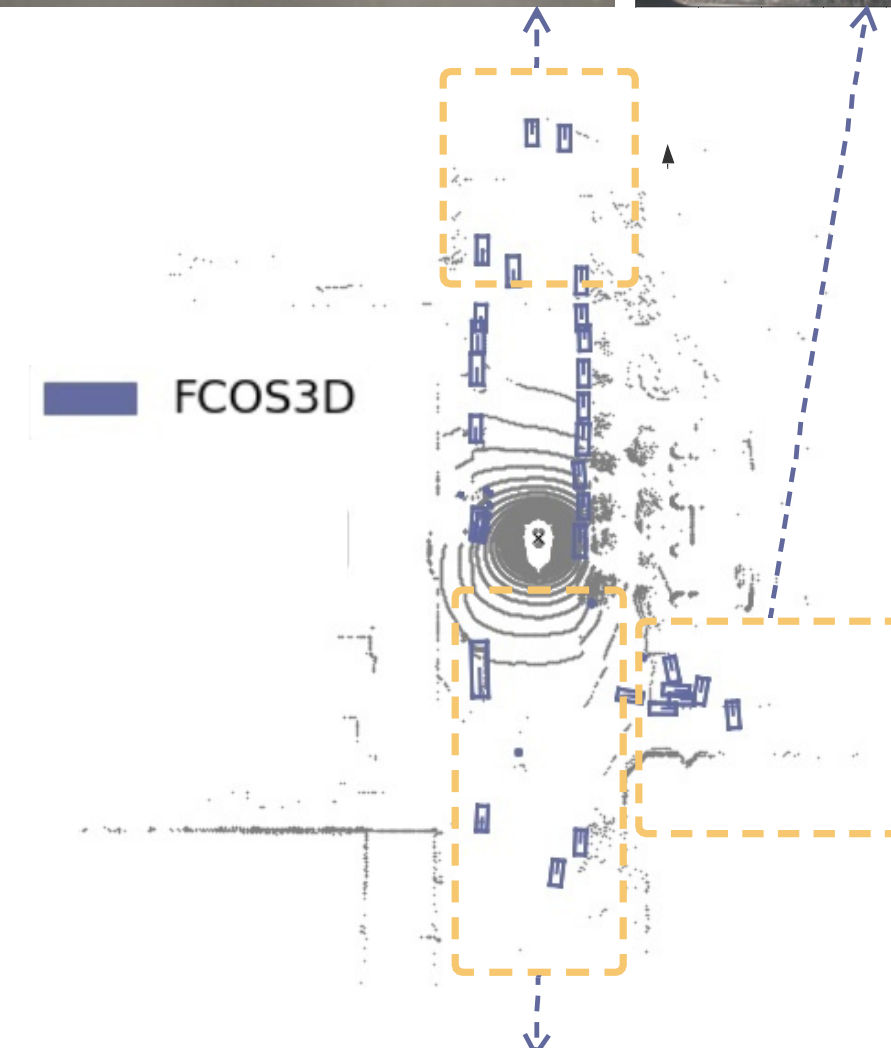
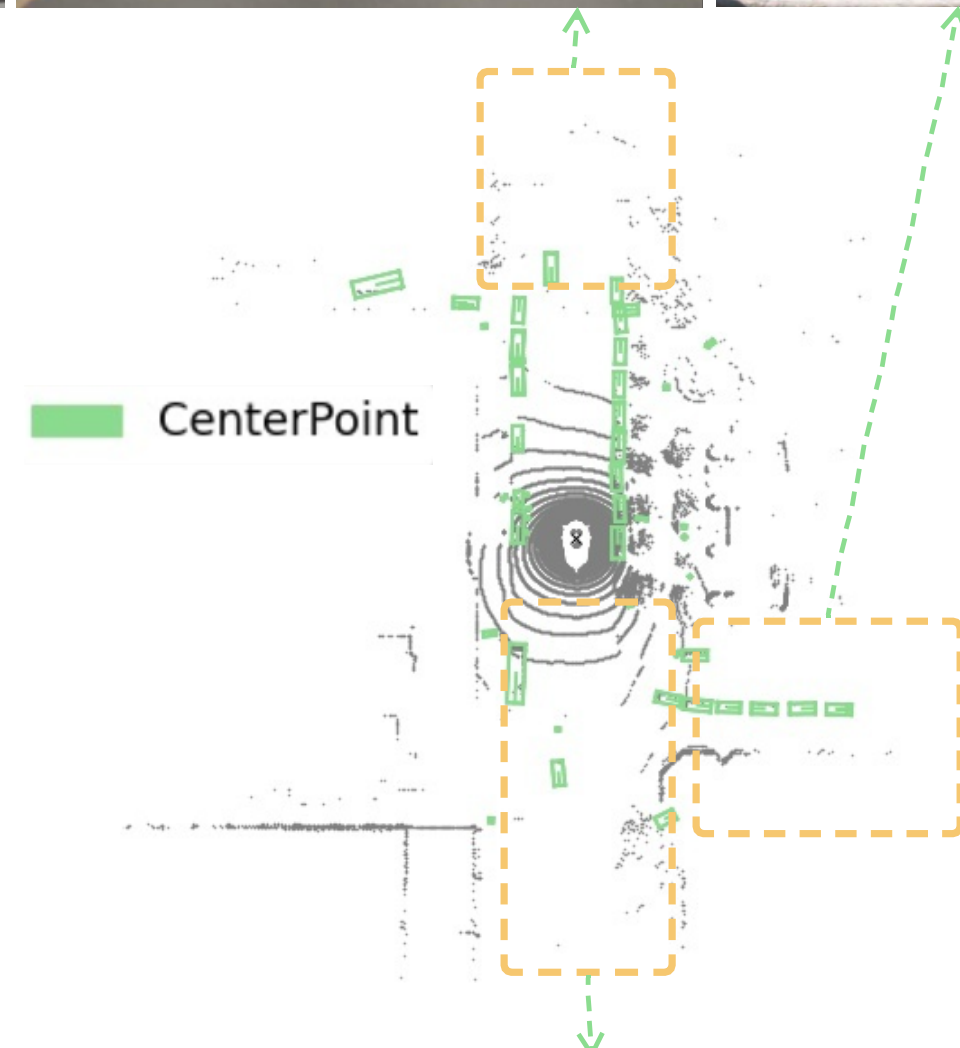
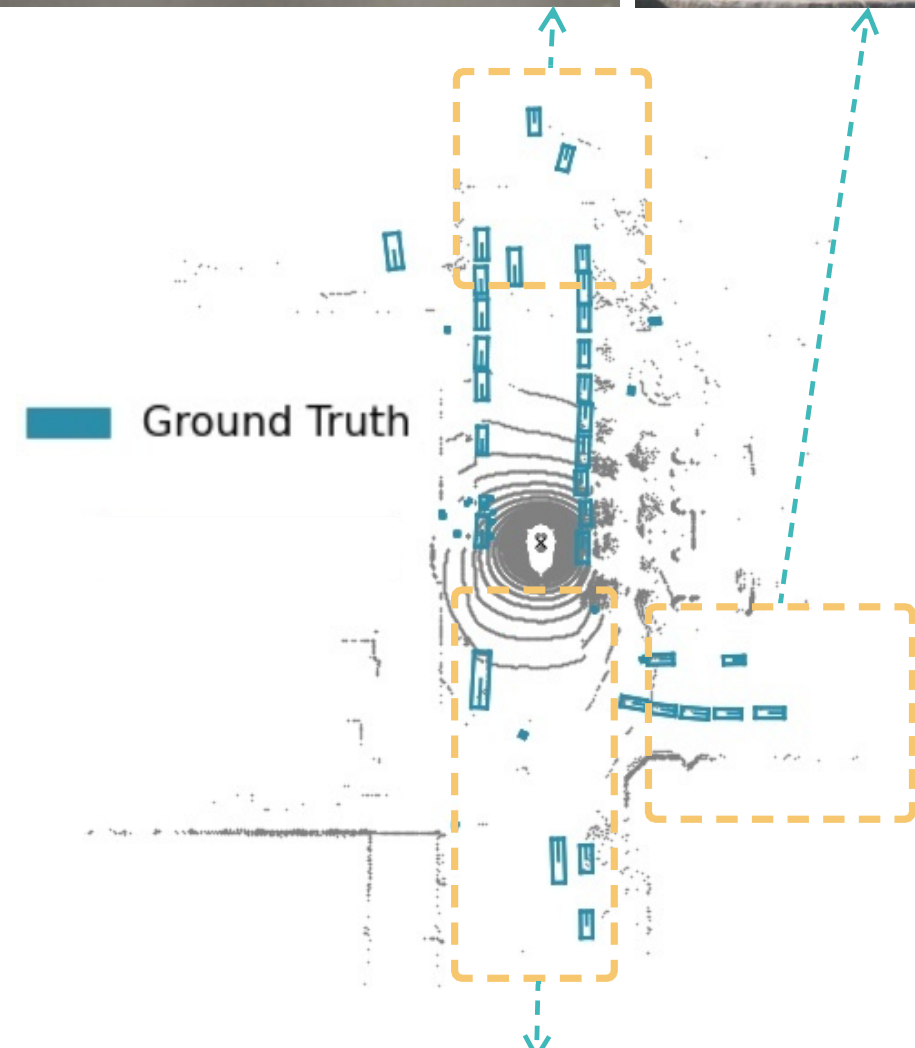
Good in far-field



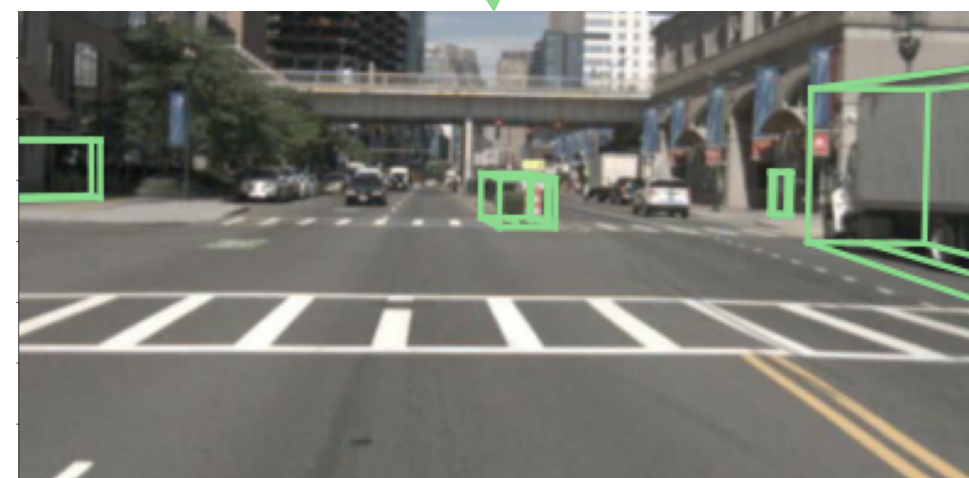
Good in clutter



80m
50m
0m
50m
80m



Far field



Poor in far-field



Good in far-field



Good in far-field