Introduction

The development of Deep Neural Networks (DNNs) made tasks such as object classification [**?**] and object detection

The DNNs utilized in the perception module need to be trained on the dataset, which should be similar to its deplo

Figure **??** and Figure **??** depict the misdetections from the Tesla autonomous driving system. The problem in the f

3D Semantic Segmentation Semantic segmentation is an important task in computer vision. This is because of its v

Problem Statement This thesis studies OOD detection over the task of 3D semantic segmentation. Notably, we stud

The other major issue we address in this thesis is the OOD detection methods. Existing OOD detection methods a

Contributions The contributions made in this thesis are

A complete survey of the available 3D LiDAR datasets and 3D semantic segmentation models.

Benchmarking of 3D LiDAR datasets for OOD detection. We proposed two benchmark datasets Sematic3D vs S3DIS a

A survey on the uncertainty estimation methods and classical OOD methods.

An evaluation of OOD detection on benchmarked datasets over the RandLA-Net model using Deep Ensembles and Flip

To summarize this chapter, we discussed the motivation behind the problem of OOD detection, like how errors in p