

3D dataset benchmarking and Out-of-Distribution detection over 3D models

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Research Questions

- ▶ **RQ1:** Are there any kind of benchmarking available for OOD in 3D datasets? If no, how do we do it?
- ▶ **RQ3:** What kind of metrics are available and can be applicable for the OOD to 3D methods?
- ▶ **RQ4:** How to apply existing OOD methods to 3D models?

Frequently used metrics are

- ▶ AUROC
- ▶ AUPRC
- ▶ FPR @95TPR
- ▶ Detection error

Datasets

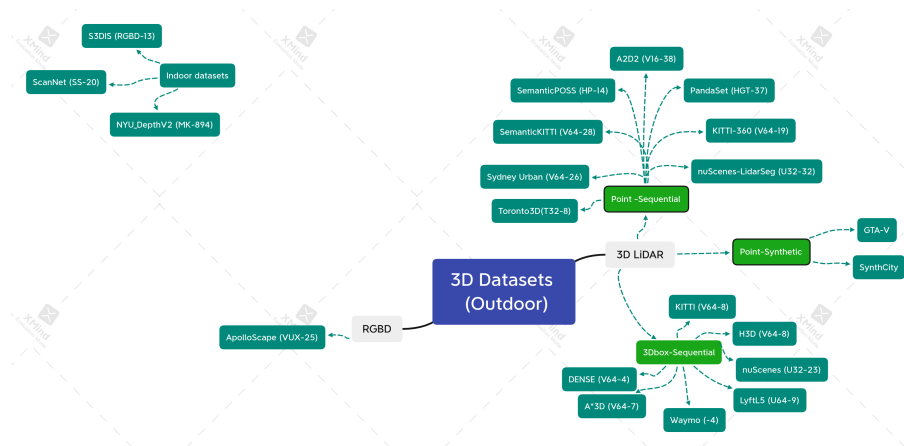


Figure: 3D datasets classification (majorly outdoor and LiDAR based)

- ▶ Minimum Viable
 - ▶ Systematic literature survey over the datasets and 3D models for semantic segmentation
 - ▶ 3D datasets benchmarking for in and out distribution
 - ▶ A 3D model implementation for the task of OOD detection for a baseline algorithm
- ▶ Expected
 - ▶ Evaluation of the baseline model over the benchmarked dataset
 - ▶ Implementation and evaluation over the another 3D model
- ▶ Desired
 - ▶ Propose a refinement on the existing OOD methods for higher preformance