

# Datasets for 3D semantic segmentation

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September 10, 2021

Name	Sensor	Type	Publisher	# Classes	Classes
Sydney Urban	Velodyne HDL-64E	O	Australian center for field robotics	26	Bench, Bicycle, Biker, Building, Bus, Car, Cyclist, Excavator, Pedestrian, Pillar, Pole, Scooter, Ticket machine, Traffic lights, Traffic signs, Trailer, Trash, Tree, Truck, Trunk, Umbrella, Ute, Van, Vegetation, 4WD
Semantic KITTI	Velodyne HDL-64E	O	University of Bonn	28	Road, Sidewalk, Parking, Building, Car, Truck, Bicycle, Motorcycle, Vegetation, Trunk, Terrain, Person, Bicyclist, Motorcyclist, Fence, Pole, Traffic signs, moving car, moving bicyclist, moving person, moving motorcyclist, moving othervehicle, moving truck, moving bus, moving onrails, other vehicle, other ground, unlabeled (outlier)
Semantic POSS	HESAI Pandora	O	University of Peking	14	People, Rider, Car, Trunk, Plants, Traffic sign, Pole, Trashcan, Building, Cone/Stone, Fence, Bike, Ground, unlabeled
nuScenes-lidarseg	Unknown-32	O	nuTonomy	16	Barrier, Bicycle, Bus (Bendy), Bus (Rigid), Car, Construction vehicle, Motorcycle, Pedestrian (Adult), Pedestrian (Child), Pedestrian (Construction worker), Pedestrian (police officer), Traffic cone, Trailer, Truck, Drivable surface, Other flat, Sidewalk, Terrain, Manmade, Vegetation
Toronto-3D	Teledyne optech maverick	O	University of Waterloo	8	Road, Road marking, Natural, Building, Utility line, Pole, Car, Fence, Unclassified
DALES <sup>1</sup>	Unknown	O	University of Dayton	8	Ground, Vegetation, Cars, Trucks, Powerlines, Fences, Poles, Buildings

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<sup>1</sup>Aerial LiDAR

Pandaset	HESAI Pandar 64 + HESAI Pandar GT	O	Scale AI	37	Smoke, Exhaust, Vegetation, Road, Lane line marking, Stop line marking, Sidewalk, Driveway, Car, Pickuptruck, Medium sized trucks, Semi truck, Towed object, Motorcycle, Othervehicle-Construction vehicle, Other vehicle-unknown, , Other vehicle-Pedicab, Emergency vehicle, Bus, Personal mobility vehicle, Motorized scooter, Train, Trolley, Tram/Subway, Pedestrian, Pedestrian with object, Animals-Bird, Animals-Other, Pylons, Road Barriers, Signs, Cones, Construction signs, Temporary construction barriers, Rolling containers
A2D2 <sup>2</sup>	Velodyne VLP-16	O	Audi	38	Nature object, Sky, RD normal street, Buildings, Car 1-4, Sidewalk, Egocar, Truck, Grid structure, Road blocks, Drivable cobblestone, Curbstone, Solid line, Non-drivable street, Poles, Dashed line, Irrelevant signs 1-3, Parking area, Obstacles/Trash, RD restricted area, Traffis guide object, Slow drive area, Signal corpus, Pedestrian 1-3, Bicycle 1-4, Painted driving instructions, Utility vehicle 1-2, Traffic signal 1-3, Sidebars, Small vehicles 1-3, Zebra crossing, Electronic traffic, Tractor, Blurred area, Animals, Speed bumps, Rain dirt
SynthCity <sup>3</sup>	NA	O	University college London	9	Road, Pavement, Ground, Natural ground, Tree, Building, Pole like, Street furniture, Car
Semantic3D <sup>4</sup>	Terrestrial Laser Scanner	O	ETH Zurich	8	Man made terrain, Natural terrain, High vegetation, Low vegetation, Buildings, Hardscapes, Scanning artifacts, Cars
TUM City Campus <sup>4</sup>	Velodyne HDL-64E	O	Technical University Muenchen	8	Manmade terrain, Natural terrain, High vegetation, Low vegetations, Buildings, Hardscapes, Vehicles
S3DIS <sup>4</sup>	Matterport scanner	I	Stanford University	12	Ceiling, Floor, Wall, Beam, Column, Window, Door, Table, Chair, Sofa, Bookcase, Board

<sup>2</sup>A2D2 dataset point annotations must be obtained by projecting on image

<sup>3</sup>Synthetic dataset

<sup>4</sup>Static dataset

ScanObject NN <sup>4,5</sup>	Unknown	I	Univeristy of Hongkong	15	Bag, Bed, Bin, Box, Chair, Cabinets, Desk, Display, Door, Pillow, Shelves, Sink Soda, Table, Toiler
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Table 1: List of datasets with point annotations available for 3D semantic segmentation. Cyan color represents in dataset, red colour represents hard ood dataset and similarly green represents soft ood dataset

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<sup>5</sup>Dataset is not openly available