Chair of Cartography and Visual Analytics
TUM School of Engineering and Design
Technical University of Munich

Master Thesis

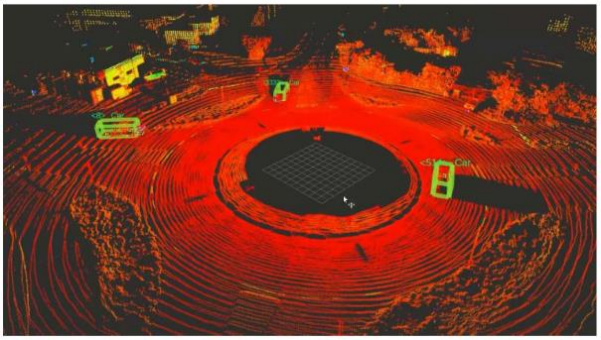
Are the Traffic Signs occluded?

Visibility Analysis and Location Optimization for Traffic Installations at Road Intersections Using LiDAR Point Cloud Data

© Wikimedia Commons

The smooth and safe operation of road intersections depends heavily on the effective functioning of traffic signs and signals (collectively referred to as traffic installations), especially in terms of their visibility to various road users. Utilizing LiDAR point cloud data from urban intersections can facilitate an in-depth analysis of the visibility of these traffic installations to various road users, ensuring their effective functionality. Moreover, we can detect improper locations of the installations, which do not comply with the local standards.

The Master Thesis candidate will be provided with a set of static Mobile Mapping measurements near the TUM main campus. In addition, dynamic LiDAR point cloud measurements of several hours at the nearby road intersections will be provided, together with 3D detections of various road users.



Detected Road Users at a Roundabout, © LiangDao GmbH

The Master Thesis candidate should have an interest in handling point cloud data with Python or C++.

Location:	TUM Main Campus – Chair of Cartography and Visual Analytics
Supervisor:	Dr.-Ing. Yu Feng / M.Sc. Zihan Liu
Room:	0370
Telephone:	089 289 – 22586
Email:	khan.liu@tum.de