Chair of Computational Modeling and Simulation
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Software Lab:

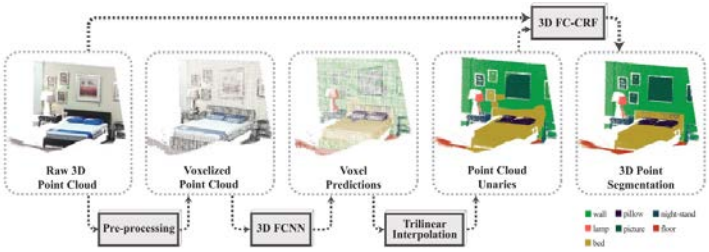
Modeling: ★☆☆☆☆
Mathematics: ★★★☆☆
Programming: ★★★★☆

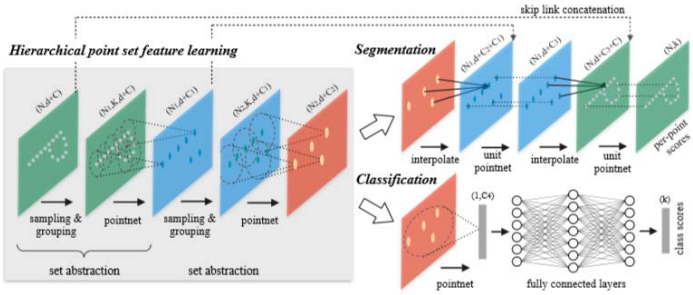
Deep learning for 3D point cloud segmentation

Setting

With the development of 3D acquisition technologies, 3D sensors are more and more popular in different fields. 3D data captured by these sensors can provide rich geometric information.

3D point cloud segmentation requires finding object boundaries along with their labels in 3D space, which is useful for further tasks such as scene modelling. The point clouds that would be focused would be point clouds of buildings of indoor scenes.





Task

The Software Lab will include the following tasks:

- Research in the “State of the Art” in 3D point cloud segmentation.
- Implement some available networks by using Python and Pytorch, such as SEGCloud, PointNet etc.
- Try to build your own networks that base on the available networks to improve the performance.

Supervisors

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