Chair of Computational Modeling and Simulation
Department of Civil, Geo and Environmental Engineering
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Detection of pipes in point clouds of industrial assets

Project Characteristics
Modeling: ★★☆☆☆
Mathematics: ★★☆☆☆
Programming: ★★★★☆
Science: ★★★☆☆

Setting:

Laser scanning is a precise and increasingly affordable technology for capturing large and complex assets in their as-is condition. The output of the scans however is an unstructured point cloud that carries only geometric information. To automate understanding of the data and facilitate remodeling, the project aims at automatic detection of pipes within a point cloud.

Your Tasks:

- Develop methods for detecting pipes within a point cloud.
- Evaluate different approaches for detection on a real world industrial dataset.

The dataset will be provided, programming language can be chosen as deemed suitable.