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Deep Learning for Lithological Point Cloud Segmentation

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Deep learning (DL) techniques are now ubiquitous in the field of computer vision and its various applications (classification, detection, and segmentation). Recent developments in 3D sensing technology and low-cost devices facilitate the process of 3D data collection. Light Detection and Ranging (LiDAR) and Structure from Motion (SfM) can rapidly generate centimeter to sub-centimeter resolution 3D point clouds, which are rapidly becoming essential to real-time applications such as autonomous driving and robotics. In Hyper 3D-AI project, we focus on solving the classification and segmentation tasks of multi-sensor 3D data using deep learning, i.e. the proposed methods would utilize different information that are acquired by the sensors to achieve a segmentation that is sensitive to geometric, textural and spectral attributes. We propose different deep models that can handle 3D data represented as point clouds and train them for the classification and segmentation tasks.

I want to give an oral presentation.

I want to present a poster.

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Session Classification: Scientific Talks