

Hello Texstudio

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摘要

This is an abstract. Semantic segmentation of 3D scenes is one of the most important tasks in the field of computer vision and has attracted much attention. In this paper, we propose a novel frame work for 3D semantic segmentation of aerial photogrammetry models, which uses orthographic projection to improve efficiency while still ensuring high precision, and can also be applied to multiple types of models (i.e., textured mesh or colored point cloud). In our pipeline, we first obtain RGB images and elevation images from the 3D scene through orthographic projection, then use the image semantic segmentation network to segment these images to obtain pixel-wise semantic predictions, and finally back-project the segmentation results to the 3D model for fusion. Specifically, for the image semantic segmentation model, we design a cross-modality feature aggregation module and a context guidance module based on category features, which assist the network in learning more discriminative features between different objects. For the 2D-3D semantic fusion, we combine the segmentation results of the 2D images with the geometric consistency of the 3D models for joint optimization, which further improves the accuracy of the 3D semantic segmentation. Extensive experiments on two large-scale urban scenes demonstrate the efficiency and feasibility of our algorithm and surpass the current mainstream 3D deep learning met

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1 问题重述

1.1 问题的背景

1.2 问题的提出

2 问题分析

2.1 问题一的分析

2.2 问题二的分析

2.3 问题三的分析

3 模型假设

4 符号说明

5 模型的建立与求解

5.1 问题一的模型

5.1.1 数据的预处理

5.1.2 模型的建立

5.1.3 模型计算求解

5.1.4 问题一的结论

5.2 问题二的模型

5.3 问题三的模型

A 附表1——XXXXXX