Master's Thesis

Deep-learning-based 3D Object Segmentation using RGB-D Image and Human Assistance Input

In this thesis, a deep neural network for 3D object segmentation will be designed that takes RGB-D data and human assistance data as inputs, and gives an accurate 3D segmentation of the object of interest in the scene as output. The human assistance will be in form of seeds in the RGB image, varying from a single point within the object region to multiple point or brush samples indicating the ROI and non-ROI.

Prerequisites

- Basic knowledge of digital signal processing / image processing
- Hands-on experience with Artificial Neural Network libraries / motivation to learn them
- Motivation to yield a successful work

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