Recurrent Semantic Instance Semantic Segmentation

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I. Abstract

***Abstract*—We present a recurrent model for semantic instance segmentation that sequentially generates pairs of masks and their associated class probabilities for every object in an image. Our system is trainable end-to-end, does not require post-processing steps and is conceptually simpler than current methods relying on object proposals. We observe that our model learns to follow a consistent pattern to generate object sequences, which correlates with the activations learned in the encoder part of our network. We achieve competitive results on three different instance segmentation benchmarks (Pascal VOC 2012, Cityscapes and CVPPP Plant Leaf Segmentation).**

Míriam Bellver got her B.S. degree in Telecommunications Engineering in Universitat Politècnica de Catalunya. During the B.S. thesis she started to work in computer vision problems in the Image Processing Group of the university. She also obtained her Master in Telecommunications in the same faculty, and completed the Master Thesis in ETH Zürich. In 2016 she obtained a PhD grant from Obra Social "la Caixa" through La Caixa-Severo Ochoa International Doctoral Fellowship program, to do her PhD in the Barcelona Supercomputing Center about computer vision using deep learning.

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