Weekly Report

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Abstract—**This week I mainly put my effort on going to Beijing to discuss project details and reading the paper about feature fusion semantic segmentation.**

I. PAPER READING

THE paper's title is *ExFuse: Enhancing Feature Fusion for Semantic Segmentation*. In this paper, they propose a new framework, named ExFuse, to bridge the gap between low-level and high-level features thus significantly improve the segmentation quality by 4.0% in total. In summary, following points show their main contributions:

- They suggest a new perspective to boost semantic segmentation performance, i.e. bridging the semantic and resolution gap between low-level and high-level features by more effective feature fusion.
- They propose a novel framework named ExFuse, which introduces more semantic information into low-level features and more spatial high-resolution information into high-level features. Significant improvements are obtained from the enhanced feature fusion.
- They evaluate their approach on the challenging PASCAL VOC 2012 segmentation benchmark and achieve 87.9% mean IoU, which outperforms the previous state-of-the-art results.
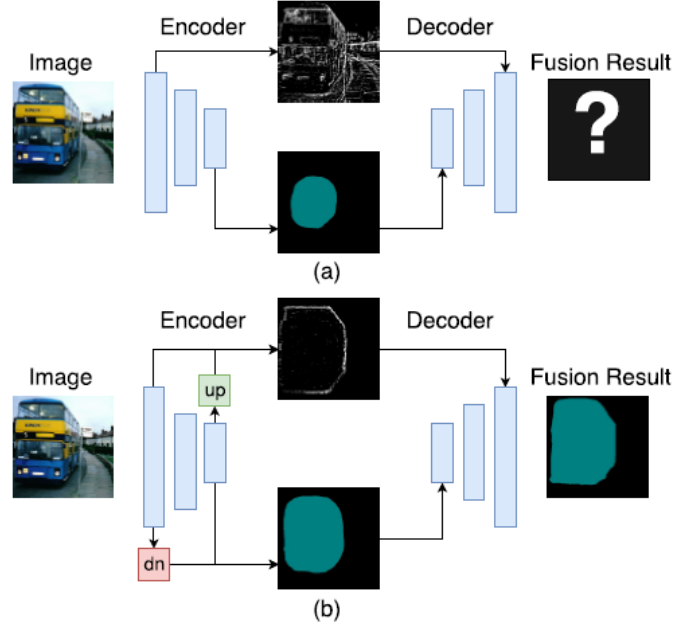
Fig. 1 is fusion methods of low-level and high-level features.

Fig. 1: Fusion methods of low-level and high-level features.