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Detection, Recognition and Segmentation in Context



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Gist, The role of Context

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Abstract

Human scene understanding is remarkable: with only a brief glance at an image, an abundance of information is available - spatial layout, scene category, identity of main objects in the scene, etc. In traditional computer vision, scene and object recognition are two related visual tasks generally studied separately. By devising systems that solve these tasks in an integrated fashion it is possible to build more efficient and robust recognition systems. In complex, natural scenes, object recognition systems can be improved by using contextual knowledge about the objects likely to be found in a given scene, and common spatial relationships between those objects. In this short course, I will review current approaches for scene understanding and contextual models for object recognition.