Learning implicit 3D models; Generating images from a different viewpoint using a single image
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Abstract

3D manipulation of objects requires a full understanding of their geometry and appearance. Previous research therefore often required explicit 3D models to extract and manipulate objects in a scene. In this thesis, we explore the possibility of transforming images with an Iterative Generative Adversarial Network, and in this way rotating the object within the image in 3D. Thus, this method no longer needs an explicit 3D model, it is shown that it is still possible to rotate the objects. It is also demonstrated that the implicit 3D model is able to rotate objects never seen before, thus indicating the models contain generic visual knowledge.