We describe a 3D object with a mesh, $k$ from 2016b 3D sky code $=[0.90, 0.98, 0.43,$ to render the 2D silhouette of a 3D mesh $+$... The model selection process is non-differentiable, we formulate rotation, and translation can be calculated as $\tilde{t}, \tilde{\theta}$, image-plane 2D coordinates of the object's 3D center, denoted as $\tilde{x} = \cdots$ reproj. For translation and Fig. 4b... Object $= 2 \text{rotation}$ $S_k$ from $\pi x Y$an et al. and predict the offset $\downarrow$ Model $\curvearrowright$. We denote $\cdots x$, $3D FM = \arg \min_i \cdots$ Mesh $G$ denotes the... The semantic branch of the 3D-SDN uses a semantic segmentation model DRN $\rightarrow$ Zhou et al. projection consistency loss. (c)(d) Multiple CAD models and free form deformation (FFD): In (c), a... To increase the photorealism of generated images, we use a standard conditional GAN loss $\rightarrow$ Zhu et al. first obtains an instance-wise semantic label map $\rightarrow$ Wang et al. To increase the photorealism of generated images, we use a standard conditional GAN loss $\rightarrow$ Mirza and Osindero... The final training objective is formulated as a minimax game between $G, D, E$... We fix the network $-\text{th layer with}$ $L_i$ for simplicity. $\rightarrow$ Simonyan and Zisserman $\rightarrow$ Dosovitskiy and Brox... W... Semantic and Textural Inference $\rightarrow$ Wang et al. $\rightarrow$ Zhu et al. $\rightarrow$ Zhou et al. $\rightarrow$ Yan et al. $\rightarrow$ Wang et al. $\rightarrow$ Dosovitskiy and Brox $\rightarrow$ Simonyan and Zisserman $\rightarrow$ Mirza and Osindero...