Abstract及其翻译

1.原文:

Sketch Your Own GAN

[1] Can a user create a deep generative model by sketching a single example? [2] Traditionally, creating a GAN model has required the collection of a large-scale dataset of exemplars and specialized knowledge in deep learning. [3] In contrast, sketching is possibly the most universally accessible way to convey a visual concept. [4] In this work, we present a method, GAN Sketching, for rewriting GANs with one or more sketches, to make GANs training easier for novice users. [5] In particular, we change the weights of an original GAN model according to user sketches. [6] We encourage the model's output to match the user sketches through a crossdomain adversarial loss. [7] Furthermore, we explore different regularization methods to preserve the original model's diversity and image quality. [8] Experiments have shown that our method can mold GANs to match shapes and poses specified by sketches while maintaining realism and diversity. [9] Finally, we demonstrate a few applications of the resulting GAN, including latent space interpolation and image editing.

2.翻译:

标题:

原文：**Sketch Your Own GAN**
意思为**起草你自己的对抗生成网络**
其中，GAN意思为**Generative Adversarial Networks**,生成式对抗网路，一种深度学习模型

具体内容

- **[1]** 用户可以通过一个简单的草图来创建一个**深层**的生成模型吗？
- **[2]** 一般来讲，创建GAN模型需要收集**大规模的样本数据**并且要求个人具有**深度学习方面的专门知识。**
- **[3]** 相比之下，素描草图可能是传达视觉概念的**最普遍**的方式。
- **[4]** 在这项工作中，我们提出了一种方法，**GAN素描草图**，即用一个或多个草图重写GAN，使GAN训练更容易为新手用户所用。
- **[5]** 在这项工作中，我们独特地根据用户草图改变一个**原始GAN模型的权重。**
- **[6]** 我们让模型的输出通过**跨域对抗损失**来匹配用户的草图。
- **[7]** 此外，我们研究探索了了不同的正则化方法，以保持原始模型的多样性和图像质量。
- **[8]** 实验表明，我们的方法可以塑造GAN匹配的**形状和姿势**指定的草图，同时保证真实度和图片的多样性。
- **[9]** 最后，我们演示了生成GAN的一些应用，包括潜在空间插值和图像编辑。