Our Sick Computer Vision Project

Phat Pham
p6phan@eng.ucsd.edu

Christian Koguchi
ckoguchi@eng.ucsd.edu

Lucas Tindall
ltindall@eng.ucsd.edu

Abstract

1 Objectives

2 Challenges

GANs are difficult to train. An imbalance in performance between the Generator network and the Discriminator network could lead to poor performance and instablity since an overpowering Discriminator will cause the Generator to be unable to learn and an overpowering Generator will be unable to improve from a weak Discriminator.

It is difficult to quantitatively test the performance of GANs using an evaluation metric without being subjective or relying on heuristics specific to the data. It is hard to compare performance across different domains and datasets in a systematic way.

3 Dataset

4 References

Precomputed Real-Time Texture Synthesis with Markovian Generative Adversarial Networks:
https://arxiv.org/pdf/1604.04382.pdf

Unsupervised Cross-Domain Image Generation:
https://arxiv.org/pdf/1611.02200.pdf

Image-to-Image Translation with Conditional Adversarial Networks:
https://arxiv.org/pdf/1611.07004.pdf

GAN Hacks:
https://github.com/soumith/ganhacks

Towards Principled Methods For Training Generative Adversarial Networks:
https://openreview.net/pdf?id=Hk4_qw5xe

Improved Techniques for Training GANs:
https://arxiv.org/pdf/1606.03498.pdf