CSE 6240 Project #1

Blog Series on Generative Adversarial Networks (GANs)

Due: 4/3/2017

Generative Adversarial Networks are an unsupervised learning technique capable of generating realistic synthetic data, like images. For this assignment you are to write a two-part blog tutorial on GANs. For reference on blog style you may want to refer to:

http://colah.github.io/posts/2015-08-Understanding-LSTMs/http://karpathy.github.io/2015/05/21/rnn-effectiveness/

And for an introduction to GANs you can look at:

https://arxiv.org/abs/1701.00160

http://blog.aylien.com/introduction-generative-adversarial-networks-code-tensorflow/

Part 1 -- Background and How They Work [50 points]

This part should introduce the reader to the history and context (applications) of GANs, and explain how they work. Grading:

- 20% Style
- 30% Background
- 50% Explanation (clarity, completeness)

Part 2 -- Application [50 points]

For this part you should create a toy or real application using GANs, and explain the problem, your approach, results and future work / conclusions. Grading:

- 25% Originality & appropriateness of the problem
- 50% Solution correctness, completeness and explanation
- 25% Discussion and conclusions

Deliverables

Your blog posts + supporting files and data + your code as python | ipython notebooks.