


















Evaluation of GANs

-  **Video:** Welcome to Course 2
3 min
-  **Video:** Welcome to Week 1
1 min
-  **Reading:** Syllabus
5 min
-  **Reading:** Connect with your mentors and fellow learners on Slack!
5 min
-  **Video:** Evaluation
6 min
-  **Video:** Comparing Images
3 min
-  **Video:** Feature Extraction
6 min
-  **Video:** Inception-v3 and Embeddings
6 min
-  **Video:** Fréchet Inception Distance (FID)
14 min
-  **Video:** Inception Score
10 min
-  **Reading:** (Optional) A Closer Look at Inception Score
1h
-  **Video:** Sampling and Truncation
6 min
-  **Reading:** (Optional) HYPE!!
1h 10m
-  **Video:** Precision and Recall
5 min
-  **Reading:** (Optional) More on Precision and Recall
1h 20m



Works Cited

All of the resources cited in Course 2 Week 1, in one place. You are encouraged to explore these papers/sites if they interest you! They are listed in the order they appear in the lessons.

From the videos:

- StyleGAN - Official TensorFlow Implementation: <https://github.com/NVlabs/stylegan>
- Stanford Vision Lab: <http://vision.stanford.edu/>
- Review: Inception-v3 — 1st Runner Up (Image Classification) in ILSVRC 2015 (Tsang, 2018): <https://medium.com/@sh.tsang/review-inception-v3-1st-runner-up-image-classification-in-ilsvrc-2015-17915421f77c>
- HYPE: A Benchmark for Human eYe Perceptual Evaluation of Generative Models (Zhou et al., 2019): <https://arxiv.org/abs/1904.01121>
- Improved Precision and Recall Metric for Assessing Generative Models (Kynkäänniemi, Karras, Laine, Lehtinen, and Aila, 2019): <https://arxiv.org/abs/1904.06991>
- Large Scale GAN Training for High Fidelity Natural Image Synthesis (Brock, Donahue, and Simonyan, 2019): <https://arxiv.org/abs/1809.11096>

From the notebook:

- CelebFaces Attributes Dataset (CelebA): <http://mmlab.ie.cuhk.edu.hk/projects/CelebA.html>
- ImageNet: <http://www.image-net.org/>
- The Fréchet Distance between Multivariate Normal Distributions (Dowson and Landau, 1982): <https://core.ac.uk/reader/82269844>

✓ Complete

Go to next item