

GANs DIS Textbook Schedule [01/03/2022]:

*= Holiday Modification (Spring Break and Easter) *Subject to change*

Tentative Schedule to include:

What are GANs

How to Implement Basic GANs

How to Evaluate GANs/GANs loss Functions

Introduction to specific types of GANs

Chapter // Section	Pages	Week	Meeting Date
What are GANs?	12	1	01/28/2022
<i>How to develop Deep Learning Models with Keras</i>	<i>14</i>	<i>1</i>	<i>Refresher</i>
How to up-sample with CNNs	14	2	02/04/2022
How to implement GAN training Algorithm	8	3	02/11/2022
How to implement GAN Hacks to stabilize model	14	3	02/11/2022
Develop a 1D GAN	26	4	02/18/2022
Develop a DCGAN for Grayscale Handwritten Digits	36	5	02/25/2022
Develop a DCGAN for small color images	39	6	03/04/2022
Explore Latent Space when Generating Faces	35	7	03/11/2022
Identify and Diagnose GAN Failure Modes	36	8	03/25/2022*
How to Evaluate GANs	8	8	03/25/2022*
How to implement inception Scores	13	9	04/01/2022
How to implement Fréchet inception Distance	12	9	04/01/2022
How to use different GAN Loss Functions	8	10	04/08/2022
How to develop a Least Squares GAN (LSGAN)	18	11	04/14/2022*
How to develop a Wasserstein GAN (WGAN)	26	12	04/22/2022
How to Develop a Conditional GAN (CGAN)	30	13	04/29/2022
How to Develop an Info Maximizing GAN (InfoGAN)	30
How to Develop an Auxiliary Classifier GAN (AC-GAN)	28
How to Develop a Semi-Supervised GAN (SGAN)	30

The last topics after the class ends are additional topics we may cover if time allows, depending on the pace of the class.