#### PAPER LIST

Instructor: Aykut Erdem

### March 10: Autoregressive Models

Transformers are RNNs:Fast Autoregressive Transformers with Linear Attention

Angelos Katharopoulos, Apoorv Vyas, Nikolaos Pappas, Francis Fleuret. ICML 2020.

### March 17: Normalizing Flow Models

Normalizing Flows with Multi-Scale Autoregressive Priors

Apratim Bhattacharyya, Shweta Mahajan, Mario Fritz, Bernt Schiele, Stefan Roth. CVPR 2020.

#### March 24: Variational Autoencoders

NVAE: A Deep Hierarchical Variational Autoencoder

Arash Vahdat and Jan Kautz. NeurIPS 2020.

#### March 31: Generative Adversarial Networks I

MSG-GAN: Multi-Scale Gradients for Generative Adversarial Networks

Animesh Karnewar, Oliver Wang. CVPR 2020.

## April 7: Spring Break

### April 14: Generative Adversarial Networks II

GANSpace: Discovering Interpretable GAN Controls

Erik Härkönen, Aaron Hertzmann, Jaakko Lehtinen, Sylvain Paris. NeurIPS 2020.

# April 21: Discrete Latent Variable Models

Taming Transformers for High-Resolution Image Synthesis

Patrick Esser, Robin Rombach, Bjrn Ommer, arXiv preprint arXiv:2012.09841, 2020.

## April 28: Strengths and Weaknesses of Current Models

Generative Models as Distributions of Functions

Emilien Dupont, Yee Whye Teh, Arnaud Doucet. arXiv preprint arXiv:2102.04776, 2021.

### May 5: Project Progress Presentations

### May 12: Self-Supervised Learning

Demystifying Contrastive Self-Supervised Learning: Invariances, Augmentations and Dataset Biases Senthil Purushwalkam, Abhinav Gupta. NeurIPS 2020.

## May 17: Pretraining Language Models

X-LXMERT: Paint, Caption and Answer Questions with Multi-Modal Transformers

Jaemin Cho, Jiasen Lu, Dustin Schwenk, Hannaneh Hajishirzi, Aniruddha Kembhavi. EMNLP 2020.