

Interesting Reads

CNN

1. Overview of CNN, the [Stanford CS231n](#) course notes is great.
2. Krizhevsky et al., "[ImageNet Classification with Deep Convolutional Neural Networks](#)", 2012
3. Simonyan et al., "[Very Deep Convolutional Networks for Large-Scale Image Recognition](#)", 2014 (aka VGG).
4. He et al., "[Deep Residual Learning for Image Recognition](#)", 2014 (aka ResNet).
5. Shelhamer et al., "[Fully Convolutional Networks for Semantic Segmentation](#)"
6. Selvaraju et al., "[Grad-CAM: Visual Explanations from Deep Networks via Gradient-based Localization](#)"
7. Zamir et al., "[Taskonomy: Disentangling Task Transfer Learning](#)"

Transformers

1. Start with [attention](#).
2. Then read [the illustrated transformer](#).
3. Vaswami et al., "[Attention Is All You Need](#)", 2017
4. Dosovitskiy et al., "[An Image is Worth 16x16 Words: Transformers for Image Recognition at Scale](#)", 2017
5. Raghu et al., "[Do Vision Transformers See Like Convolutional Neural Networks?](#)", 2021

Data

1. Cui et al., "[Class-Balanced Loss Based on Effective Number of Samples?](#)", 2019
2. Zhu et al., "[Do We Need More Training Data?](#)", 2015
3. [Data/Image Augmentation](#).

Interesting Reads

Performance & Monitoring

Some topics that are related to ML performance:

1. Sculley et al., "CMachine Learning: The High-Interest Credit Card of Technical Debt", 2014
2. Breck et al., "The ML Test Score", 2017 (good paper on how to monitor ML systems and reducing technical debt)
3. Some keywords on model efficiency improvement - model compression pruning, model quantization, knowledge distillation
4. Distributed learning
5. Zhang et al., "Machine Learning Testing: Survey, Landscapes and Horizons"