

Twitter Thread by Vladimir Haltakov



Vladimir Haltakov

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Machine Learning Paper Reviews ■■

Check out this thread for short reviews of some interesting Machine Learning and Computer Vision papers. I explain the basic ideas and main takeaways of each paper in a Twitter thread.

■ I'm adding new reviews all the time! ■

AlexNet - the paper that started the deep learning revolution in Computer Vision! ■■■■

<https://t.co/aE8259ca1N>

It's finally time for some paper review! \U0001f4dc\U0001f50d\U0001f9d0

I promised the other day to start posting threads with summaries of papers that had a big impact on the field of ML and CV.

Here is the first one - the AlexNet paper! <pic.twitter.com/QNLPIMZSIa>

— Vladimir Haltakov (@haltakov) [September 28, 2020](#)

DenseNet - reducing the size and complexity of CNNs by adding dense connections between layers. ■■

<https://t.co/ZaGeHPzoTs>

ML paper review time - DenseNet! \U0001f578\ufe0f

This paper won the Best Paper Award at the 2017 Conference on Computer Vision and Pattern Recognition (CVPR) - the best conference for computer vision problems.

It introduces a new CNN architecture where the layers are densely connected. <pic.twitter.com/DuHytaoXia>

— Vladimir Haltakov (@haltakov) [October 15, 2020](#)

Playing for data - generating synthetic GT from a video game (GTA V) and using it to improving semantic segmentation models. ■■

<https://t.co/tgNvLnZgT1>

Time for another ML paper review - generating synthetic ground truth data from video games! \U0001f3ae

I love this paper, because it pushes the boundaries of creating realistic synthetic ground truth data and shows that you can use it for training and improve your model.

Details \U0001f447 pic.twitter.com/fBgORYG8Lz

— Vladimir Haltakov (@haltakov) [October 5, 2020](#)

Transformers for image recognition - a new paper with the potential to replace convolutions with a transformer. ■

<https://t.co/K3uN0zE2DA>

Another paper review, but a little different this time... \U0001f937\u200d\u2642\u200e

The paper is not published yet, but is submitted for review at ICLR 2021. It is getting a lot of attention from the CV/ML community, though, and many speculate that it is the end of CNNs... \U0001f447<https://t.co/bh6wUxYfxu>
pic.twitter.com/dZGBYB8A5U

— Vladimir Haltakov (@haltakov) [October 5, 2020](#)

ResNet allowed to train very deep and simpler networks for the first time. ■■

<https://t.co/BCWxz7gfPe>

Here comes a review of one of the fundamental papers in CV and ML - ResNet \u21a9\u200e

Formulating the classical CNN network as a residual network allowed training much deeper (but simpler) networks. ResNet won the first place in the ILSVRC and COCO 2015 challenges.

Thread \U0001f447 pic.twitter.com/bGEEz08HpE

— Vladimir Haltakov (@haltakov) [October 22, 2020](#)