

Documentation:

Seminar Mathematical Machine Learning

Selected famous papers in Machine Learning

Author

April 4, 2023

1 Adam: A method for stochastic optimization (Kingma and Ba 2015)

Date: May 16, 2023

My role: Reviewer

1.1 Preparation

Explain how you prepared yourself for this role. Of course this depends on the role you had. Possible questions to ask yourself: What did you read? Where did you look for information? How did you structure your preparation? Which obstacles did you face? etc.

1.2 Reflection

Reflect on the role you played and on the meeting in general. Would you do something different, if you were to do it again? In this section you can write as much or as little as you like.

2 ImageNet classification with deep convolutional neural networks (Krizhevsky, Sutskever, and Hinton [2017](#))

Date:

My role:

2.1 Preparation

2.2 Reflection

3 Deep residual learning for image recognition (He et al. [2016](#))

Date:

My role:

3.1 Preparation

3.2 Reflection

4 Attention is all you need (Vaswani et al. [2017](#))

Date:

My role:

4.1 Preparation

4.2 Reflection

5 Improving language understanding by generative pre-training (Radford et al. 2018)

Date:

My role:

5.1 Preparation

5.2 Reflection

References

- He, Kaiming et al. (June 2016). “Deep residual learning for image recognition”. In: *2016 IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*. IEEE. DOI: [10.1109/cvpr.2016.90](https://doi.org/10.1109/cvpr.2016.90). arXiv: [1512.03385](https://arxiv.org/abs/1512.03385).
- Kingma, Diederik P. and Jimmy Ba (2015). “Adam: a method for stochastic optimization”. In: *3rd International Conference on Learning Representations, ICLR 2015, San Diego, CA, USA, May 7–9, 2015, Conference Track Proceedings*. Ed. by Yoshua Bengio and Yann LeCun. arXiv: [1412.6980](https://arxiv.org/abs/1412.6980).
- Krizhevsky, Alex, Ilya Sutskever, and Geoffrey E. Hinton (May 2017). “ImageNet classification with deep convolutional neural networks”. In: *Communications of the ACM* 60.6, pp. 84–90. DOI: [10.1145/3065386](https://doi.org/10.1145/3065386).
- Radford, Alec et al. (2018). *Improving language understanding by generative pre-training*. Tech. rep. URL: https://s3-us-west-2.amazonaws.com/openai-assets/research-covers/language-unsupervised/language_understanding_paper.pdf.
- Vaswani, Ashish et al. (2017). “Attention is all you need”. In: *Advances in Neural Information Processing Systems*. Ed. by I. Guyon et al. Vol. 30. Curran Associates, Inc. arXiv: [1706.03762](https://arxiv.org/abs/1706.03762). URL: https://proceedings.neurips.cc/paper_files/paper/2017/file/3f5ee243547dee91fbd053c1c4a845aa-Paper.pdf.