

07

Fast and Accurate Deep Learning

~ Efficient learning utilizing directions of past gradients ~

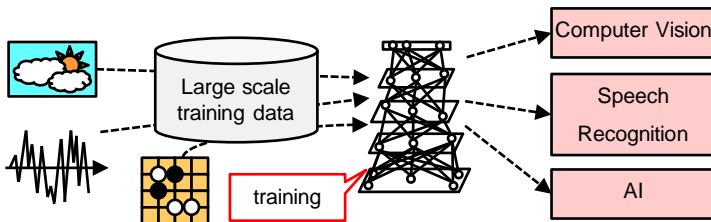
Abstract

Deep Learning has received a lot of attention in industry because of successes in fields of speech recognition, computer vision and AI. However, Deep Learning is time-consuming for the training. In order to overcome this problem, **we have developed efficient training algorithms for Deep Learning**. Our algorithm adapts learning rate by using directions of past gradients. **This approach gives 2 to 5 times fewer training iterations than previous algorithm**. In addition, **our method reduces tuning costs of hyper parameters and achieves high accuracy**.

Our algorithm needs 2 to 5 times fewer training iterations than previous algorithm by adapting learning rate.

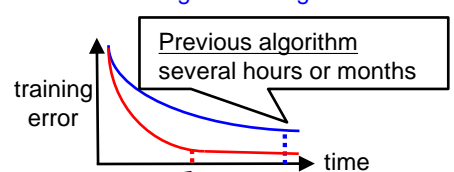
Back ground

Deep Learning outperforms human ability in some fields by training deep neural networks.



Problem

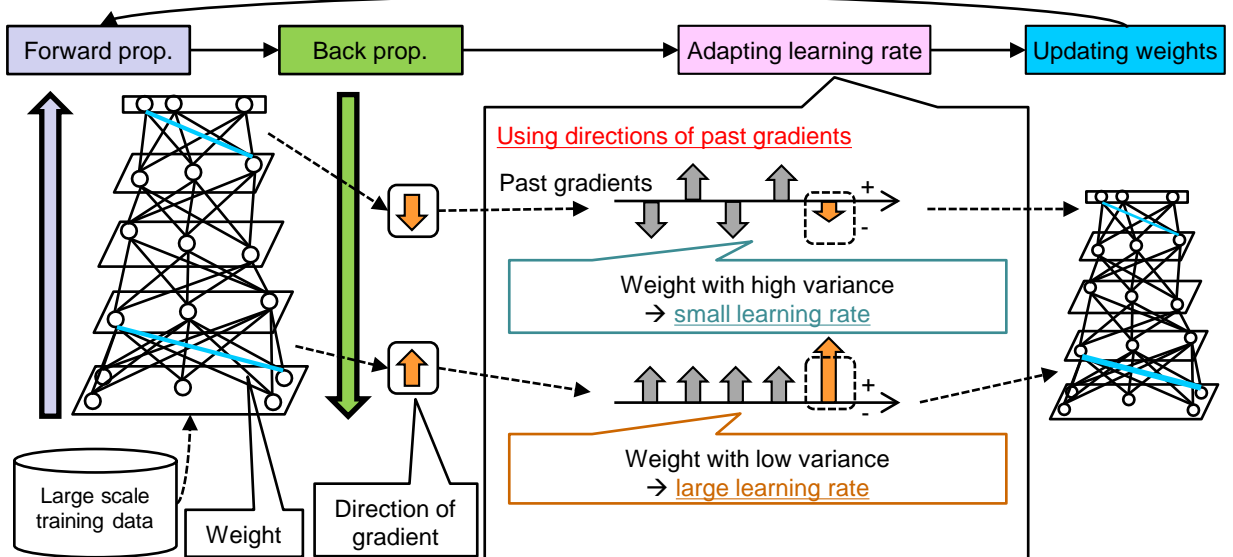
Time-consuming for training



Our algorithm

2 to 5 times fewer training time

Our algorithm adapts learning rate by using directions of past gradients.



【Reference】

【Contact】

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