deeplearning.ai

# Introduction to Neural Networks

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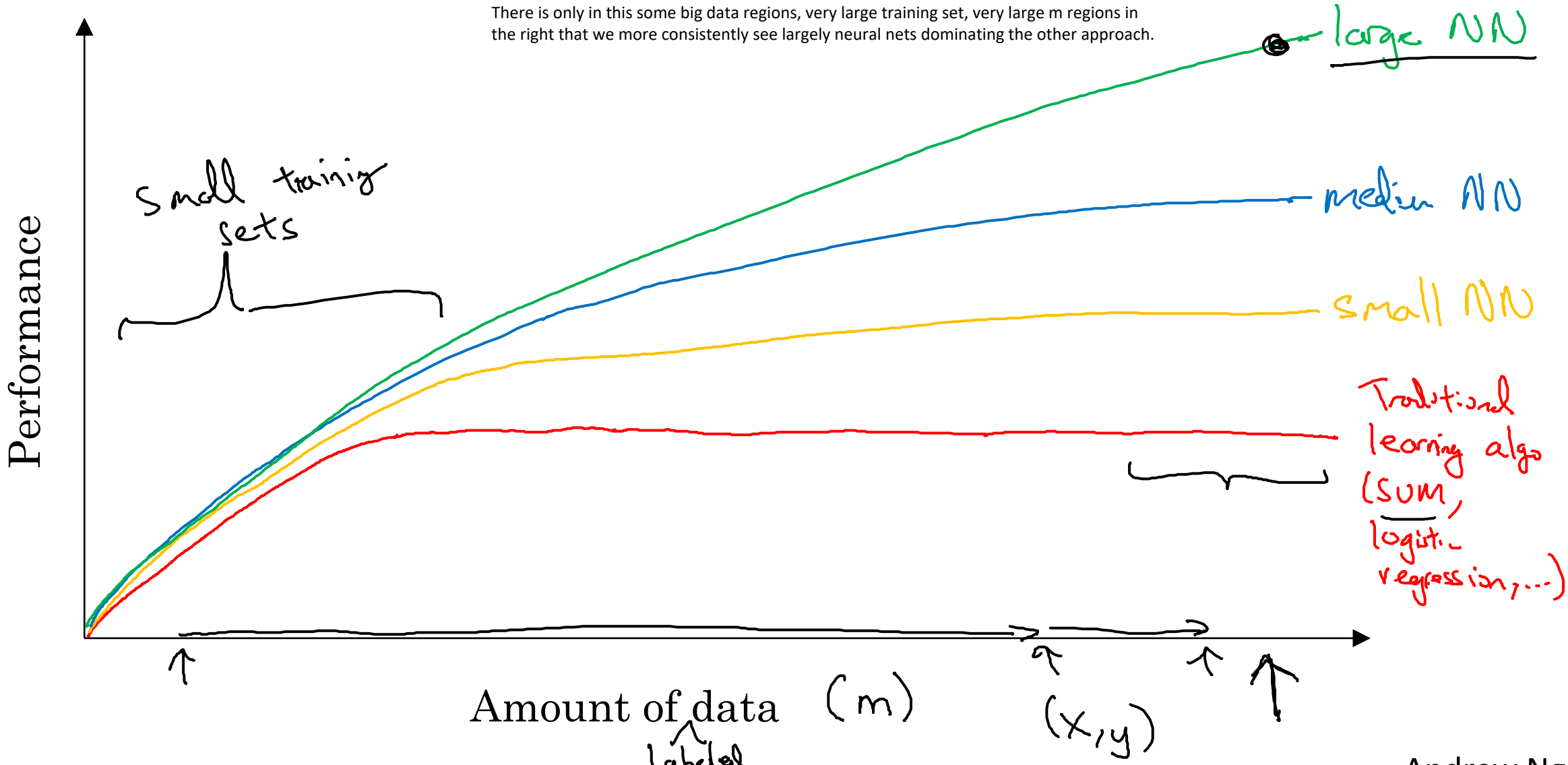
# Why is Deep Learning taking off?

# Scale drives deep learning progress

There is only in this some big data regions, very large training set, very large m regions in the right that we more consistently see largely neural nets dominating the other approach.




Andrew Ng

# Scale drives deep learning progress

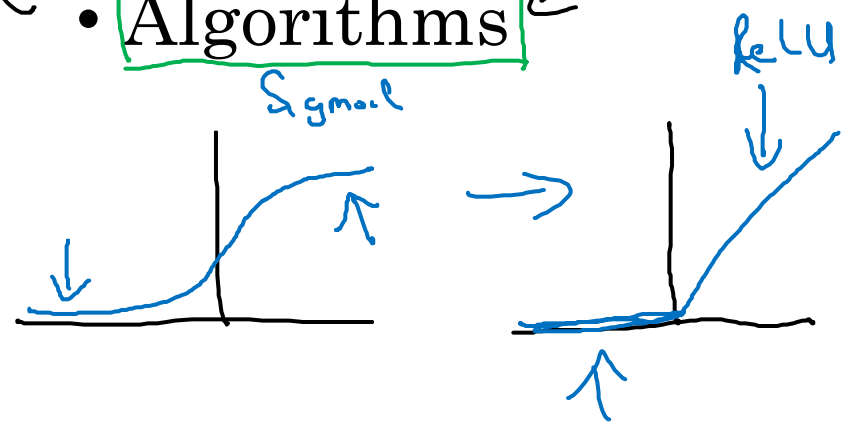
- Data

by changing the what's called the activate function of the neural network to use this function called the ReLU function of the Rectified linear Unit. The gradient is equal to one for all positive values of input and so the gradient is much less likely to gradually shrink to zero.

- Computation

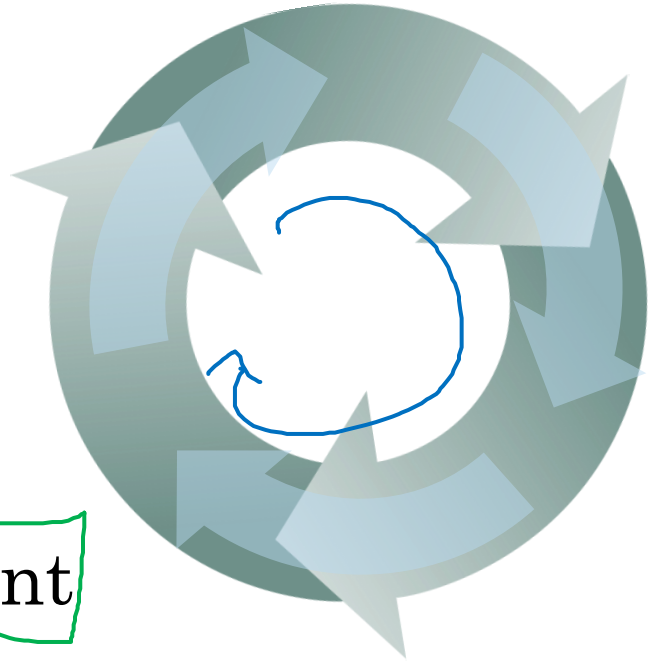
It turns out that just by switching the sigmoid function to the ReLU function, has made an algorithm called gradient descent work much faster.

- Algorithms




Where the scope of the function, where the gradient is nearly zero, learning becomes really slow.
the parameters just change very slow and so learning is very slow

Idea



Experiment

Code

10 min
1 day
1 month