

Performance Factors for Large Scale Machine Learning Applications

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Abstract—

- **Deliver short introduction for neural networks with different aspect focused examples**
- **What we want to show in this paper(performance factors)**
- **To what end we came**
- **some other stuff that comes up during the paper and is important enough to be named at the beginning**

I. INTRODUCTION

- Deliver a short introduction coining the expressions neural network(deep learning , recurrent, deep belief ...) and explain to focus in the further paper on deep learning
- To what extend did we explore the performance of machine learning related to which factors and specialization of specific kind of nets
- Show which methods were used to explore neural nets
- Name the result again that was reached at the end

A. Neural Nets

A Neural Net describes an entity consisting of multiple kind of nodes, which are the inputs responsible for receiving the data belonging to the current input vector, the outputs acting as the units for the output vector in the net, and the hidden nodes responsible for transforming the data for later usage or output. These can be ordered into two groups, the open layers which contains the input and output nodes, and the hidden layers containing the hidden nodes. Although no hidden node has to be present to guarantee an acceptable result of the net for some problems and data sets.

1) *Neural Nodes*: explain the base idea of deciding unit, perceptron, sigmoid soso

2) *Step to Nets*: very short step to neural nets and why there are different types

B. Implementations for different languages

here i will shortly name all implementations relevant to the following content

C. Performance of Neural Nets

here belongs a description of all the observed performance measures which we will use to classify the following factors to their influence on the overall performance

D. Performance Factors and their influence

here will go the tables and their explanation of different factors found with their influence over scale of data and complexity of the net

II. CONCLUSION

yeah ... pretty much the conclusion shortly repeating the basis that is important for it and point the way they were created, should be larger part to emphasize the importance of some factors over others and the reasoning behind this classification

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