Neural network knowledge distillation in tensor networks

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Abstract

This is the paper's abstract . . .

1 Introduction

This is time for all good men to come to the aid of their party!

Outline

2 Layer-by-layer approach

It has been common to each layer of a neural network as a certain abstracted representation of the previous information and their for generalisibility. Thus, we propose to change the cost, we use a tensor mapping and train each mapping individualy.

$$x \longrightarrow H_1 \longrightarrow H_2 \longrightarrow (\dots) \xrightarrow{g} \hat{y}$$

Each hidden layer is of the form;

$$a^l = \sigma^l\big(W^l a^{l-1}\big)$$

In tensor layer form, it will be defined as

$$a^l = T^l \cdot \Phi\big(a^{l-1}\big)$$

Here,