

A Just Resembling Translations of Feed Forward and Back Propagation Neural networks

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Abstract—We proposed an approach which can maintain its originality by quantifying principles components towards generated errors and rectifying this errors by retrieved language encryption or translations of traditional neural networks which resembles our approach. Even though proposed method resembles traditional neural networks, our concepts towards translations varies from one to other person according to his/her perceptions or behaviour based on human visualisation characteristics.

Indexing terms Human Visual Characteristics, Perceptions, Neural Networks

I. INTRODUCTION

Generally, the Analysis of Visual content is classified towards a situation where humans can reach to the extent where state of mind of humans can understand the basic translations based on intuiting or human perception level. For a record, we conducted subjective analysis based on human perception since it is concerned with how video is perceived by a viewer or subject and expresses subjects opinion on a particular continuity of video sequence in comparison with its original one. The subject has to vote for the video sequences under certain test environment conditions based on the ITU-Recommendations[5].

A. Conceptual facts within Traditional Neural Networks based on Medical Science

Our discussion towards simplified Neural Network is completely understandable by experts to common people because of translations and moreover here we explain a in detailed functionality of translated neural networks cited et [6]

1) *Single Step Translations based on Decision Making Tree(SSTDMT)*: amitesh et al [4] proposed a method which is based on data screening, which actually detects and discards the observations within observers based on consistency of votes given and similarly, the distribution of scores are normal or not is confirmed by the means of β_2 test. so out of proposed method by Author, we considered Single Step Translations based on Decision Making Tree(SSTDMT), mean \bar{u}_{jklr}^* , standard deviation S_{jklr}^* and the coefficient β_{2jklr}^* for each of the time windows of each test configuration are calculated.

- n is observation within Luminance Plane.
- j is observer's decision within chrominance plane.
- k is ith eye tracking within pixel domain
- l is number of consecutive or successive frames
- r is signal within frequency domain.

$$\beta_{2jklr}^* = \frac{m_4}{(m_2)^2}. \quad (1)$$

where

$$m_x = \frac{1}{N} \cdot \sum_{n=1}^N (u_{njklr}^*)^x.$$

The centered scores u_{njklr}^* are computed as follows

$$u_{njklr}^* = u_{njklr} - u_{nklr} + \bar{u}_{klr}.$$

The mean score for each test configuration is computed as

$$\bar{u}_{klr} = \frac{1}{N \cdot J} \cdot \sum_{n=1}^N \sum_{j=1}^J u_{njklr}.$$

u_{njklr} is score of i^{th} observer for j^{th} time window and k^{th} test condition for 1 video sequences with repetition r. The mean score for observation of each observer and for each test configuration is computed as

$$\bar{u}_{nklr} = \frac{1}{J} \sum_{j=1}^J u_{njklr}.$$

we need to calculate P_i^* and Q_i^* , for i^{th} observer and where P_i^* and Q_i^* are maximum and minimum scores of test sequences given by i^{th} observation of a individual subject or observer.

if $(2 \leq \beta_{2jklr} \leq 4)$ then:

$$\text{if } u_{njklr}^* \geq \bar{u}_{jklr}^* + 2S_{jklr}^* \text{ then } P_i^* = P_i^* + 1$$

$$\text{if } u_{njklr}^* \leq \bar{u}_{jklr}^* - 2S_{jklr}^* \text{ then } Q_i^* = Q_i^* + 1$$

else

$$\text{if } u_{njklr} \geq \bar{u}_{jklr} + \sqrt{20}S_{jklr}^* \text{ then } P_i^* = P_i^* + 1$$

$$\text{if } u_{njklr} \leq \bar{u}_{jklr} - \sqrt{20}S_{jklr}^* \text{ then } Q_i^* = Q_i^* + 1$$

if $\frac{P_i^* + Q_i^*}{J \cdot K \cdot L \cdot R} \geq 0.1$ or $\frac{P_i^* - Q_i^*}{P_i^* + Q_i^*} \geq 0.3$ then reject observation of each observer i

II. MISCONCEPTION TOWARDS FEED FORWARD AND BACK PROPAGATION

Basically in the field of Medical Science, experts considers 5 senses(Vision, Breathe, Thoughts, Hearing and Touch) as inputs or signals for dendrites and moreover order of this 5 senses towards dendrites may differ accordingly. In our research, we considered a specific schema which has been presented in a figure format. Even though functionality of our proposed method resembles with feed forward and back propagation but amitesh et al [3] mentioned about concept relevant to signal processing based on properties and characteristics

A. Assumption of Neuron, as Sigmoid Function

We understood that our proposed Schema may resemble with traditional one but signalling characteristics are completely based on scientific reasoning such as hypothetical

STRUCTURE OF NEURON

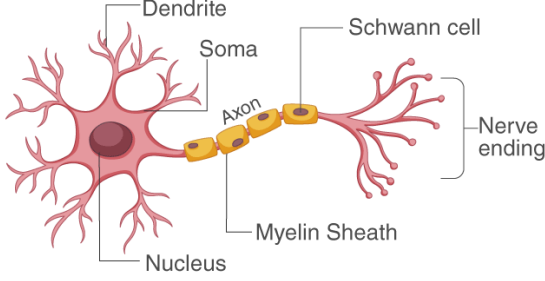


Fig. 1. Structure of Neuron

assumptions, moreover, Neuron functionality is completely based on Sigmoid function cited from [1]. In Medical terms, we preferred to translate neuron through acquired weights as Recall(weights based on impulse rate transmitted as binary signal from dendrites to nucleus) and attributes as Self awareness and Self realization.

1) *Beyond the intuition, The Recall:* Human perception is considered as the true judgment of visual content and to be precise, it is quite expensive and tedious in terms of time such as preparation, running and human resources, but in reality, Recall is a natural ability based on animal instincts and moreover, we usually recall the things that makes us busy in our daily life just in case of forgetting, in Such cases we usually remember thing through eyesight or vision which is referred as intuition. So basically, humans use eyesight to recall which is easiest way than using through other senses which is also beginning of awakening intuition or so called another sense. So, we did some assumptions to quantify the perceptual quality based on human visual characteristics by conducting subjective experiments and to validate the visual data based objective evaluation procedural process to be designed based on Human Visualizing characteristics[2].

2) *Translations of weights:* Some aspects of Human Visual Systematic order such as spatial and temporal masking effects, contrast, orientation sensitivity, frequency selectivity and color perception are incorporated in the nucleus of a neuron and moreover dendrites carries signals towards nucleus of respective neuron in a binary format in our case, generally binary coding or respective language encryption is a basic prerequisite of translations for functioning of neural Schema and the binary signal are treated as rate of impulse in medical terms.

3) *New Attributes, it's Self Awareness and Self Realization:* The aspects which we mentioned in above section are completely understandable in terms of translations, In our case its intuiting which is based on New attributes, to be precise it's self awareness, one of another sense's decision which is based on specific coordination, in reality self awareness is coordination between eye sight and breathe based on decision of visual content,

- In general terms recalling happens in present based on past content which can be assumed as sequence 1
- Secondly Self awareness continues with sequence 1, i.e, Assumption of recalling content based on probability

theory

- Finally self realization is conditional decision which is executed by possibilities based probability

Even though it is computationally very expensive and complex to understand design a quality metric with above aspects. It is useful for a wide range of applications if it correlates well with human perception.

B. Hypothesis, An Approach yet to be Approved

- "Are Perception within so called Human Visual System is Compatible with Convolutional Neural Networks over Traditional Neural Networks"

III. FALSIFICATION OF PRINCIPLES OF CONVOLUTIONAL NEURAL NETWORK

In reality, Convolutional Neural Networks is dependent solely on either Principles in irregular pattern or errors in cyclic pattern through coordination. speech coordination plays vital role in convolutional NN but traditional neural networks maintains originality by eliminating errors based on principle's.

IV. BENEFITS OF CONVOLUTIONAL NEURAL NETWORKS TRANSLATIONS

Generally, This kind of Patterns related to principles of CNN or its Translations falls into category or field of Deep Learning Transfer and our research may follow towards this kind of future works.

V. CONCLUSION

The main difference between existing and proposed one is maintaining originality by quantifying principles components towards errors and reverting back to original state.

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