Abstract

It is an undisputed fact that language is the most effective human tool to structure experience and to model environment. It is therefore necessary to model linguistic terms. A natural language (or ordinary language) is a language that is spoken, written, or signed by humans for general-purpose communication, as distinguished from formal languages (such as computer-programming languages or the "languages" used in the study of formal logic). Here, English language words are considered which can be classified as noun, verb, adjective, adverb, etc. A word can behave as a noun as well as a verb depending on the sentence. Similarly multiple behaviors are possible for many words with no variation or slight variation in spelling. Hopfield Associative memory can be used to store patterns and then a search can be done to find a correct pattern i. e., word from memory that matches best with the input key, for example, a misspelled word. A part of speech tag (like a word can be a noun or a
verb) can also be associated with each word in the binary form and hence a word can be searched as a noun or as a verb.

References

- Bipul Pandey, Sushil Ranjan, Anupam Shukla, Ritu Tiwari, "Sentence Recognition Using Hopfield Neural Network", IJCSI International Journal of Computer Science Issues, Vol. 7, Issue 4, Design binary format to store different POS tag Design a binary format to store alphabets Code each word to binary format [-1, 1] as a column vector Append the binary POS tag for each word in the respective column victor The Hopfield network is created by supplying data input victor Stimulate the network with misspelled words and search word for different POS tag Evaluate the result sets Proceedings of The National Workshop-Cum-Conference on Recent Trends in Mathematics & Computing 2011 The Technological Institute of Textile & Sciences, Bhiwani, Haryana May 21, 2011 208 No 6, July 2010, ISSN (Online): 1694-0784 ISSN (Print): 1694-0814.
- Yi-Ming Chung, Qin He, Kevin Powell and Bruce Schatz, "Semantic Indexing for a Complete Subject Discipline", DL99, Berkeley, CA USA © ACM 1999 1-58113-145-3/99/08
Word Recognition using Hopfield Network

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