**Deep-Learning ass3 – challenge(1.1)**

Eilon Bashari & Daniel Greenspan

308576933 308243948

**Can the two languages be distinguished using a bag-of-words approach?**

The positive-negative language can’t be distinguished using the bag of words approach because the language has rules regarding only the words but not regarding sentences and sequences of words. In the bag of words approach uses a sequence of word to determine what tag to assign to it and would not “understand” the rules of just one word, in addition to the fact that there are no rules for how words are related to other words can’t tell us nothing.

**Can the two languages be distinguished using a bigram or trigram based approach?**

The positive-negative language can’t be distinguished using a bigram or trigram approach (unless the numbers sequences are from length of 1-3) because a number sequence in a word can be of any length and bigrams or trigram can’t learn the relations of numbers sequences to the order of the letters (a,b,c,d/a,c,b,d) and therefor won’t be able to distinguish between the two languages.

**Can the two languages be distinguished using a convolutional neural network?**

The positive-negative language can’t be distinguished using a convolutional neural network because a CNN “learns” from sequences of word and their relations. Our language has only rules regarding words and not regarding sequences of words and therefor the positive-negative language will not be distinguished using a CNN.

.