Hide menu

Siamese Networks

- Video: Week Introduction 46 sec
- Video: Siamese Networks 2 min
- Reading: Siamese Network 5 min
- Video: Architecture 3 min
- Reading: Architecture 3 min
- Lab: Creating a Siamese Model 20 min
- Video: Cost Function 3 min
- Reading: Cost Function 6 min
- Video: Triplets 5 min
- Reading: Triplets 6 min
- Video: Computing The Cost I 5 min
- Reading: Computing the Cost I 6 min
- Video: Computing The Cost II 6 min
- Reading: Computing the Cost II 5 min
- Lab: Implementing the Modified Triplet Loss in TensorFlow 30 min
- Video: One Shot Learning 2 min
- Reading: One Shot Learning 4 min
- Video: Training / Testing 3 min
- Reading: Training / Testing 4 min
- Lab: Evaluate a Siamese Model 20 min
- Video: Week Conclusion 37 sec

Lecture Notes (Optional)

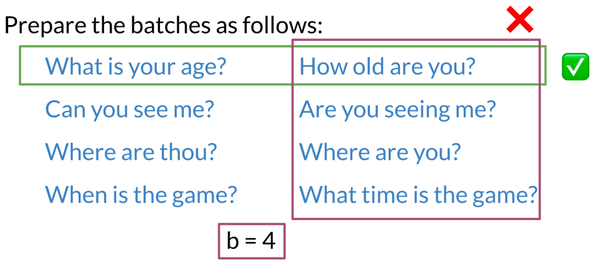
Practice Quiz

Assignment: Question Duplicates

Acknowledgments

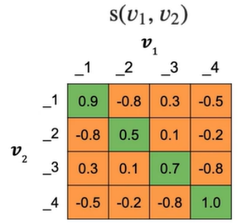
Computing the Cost I

To compute the cost, you prepare the batches as follows:



Note that each example on the left has a similar example to its right, but no other example above or below it means the same thing.
Then you can calculate the similarity matrix between each possible pair from the left and right columns.

Computing The Cost



$$\mathcal{L}(A, P, N) = \max(diff + \alpha, 0)$$
$$\text{diff} = \text{s}(A, N) - \text{s}(A, P)$$

$$J = \sum_{i=1}^{m} \mathcal{L}(A^{(i)}, P^{(i)}, N^{(i)})$$

The diagonal line corresponds to scores of similar sentences, (normally they should be positive). The off-diagonals correspond to cosine scores between the anchor and the negative examples.

Mark as completed

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