**Multi-Perspective Sentence Similarity Modeling with Convolutional Neural Network**

Citation:

{ **Title**:{Multi-Perspective Sentence Similarity Modeling with Convolutional Neural Network },

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**Input format for prediction**:

Sentence 1, Sentence 2

**Output format for prediction**:

Sentence 1, Sentence 2, Similarity score

**Input format for training**

The **semeval-sts 2012,**2013,2014,2015,2016 is preprocessed and converted into tsv format is used for training the model.

The input is in the tsv format as shown below:

Similarity\_Score Sentence1 Sentence2

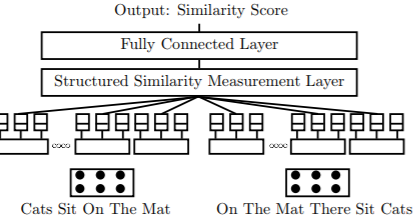
The Model consists of two main components:

* Sentence model
* Similarity measurement layer

The model consists of two main components as shown in figure:

1 .A sentence model for converting a sentence into a representation for similarity measurement; we use a convolutional neural network architecture with multiple types of convolution and pooling in order to capture different granularities of information in the inputs.

2. A similarity measurement layer using multiple similarity measurements, which compare local regions of the sentence representations from the sentence model.

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The code is implemented in python 3.5 and tensorflow 1.0.0

The benchmark metrics used is **semeval-sts 2012,**2013,2014,2015,2016 for training and testing the data.

**Evaluation metrics and results**

**Loss: 14.6**

**Accuracy: 80%**

Github Link: <https://github.com/Fengfeng1024/MPCNN>

Youtube Link: <https://youtu.be/Jbc6W1JGBxA>