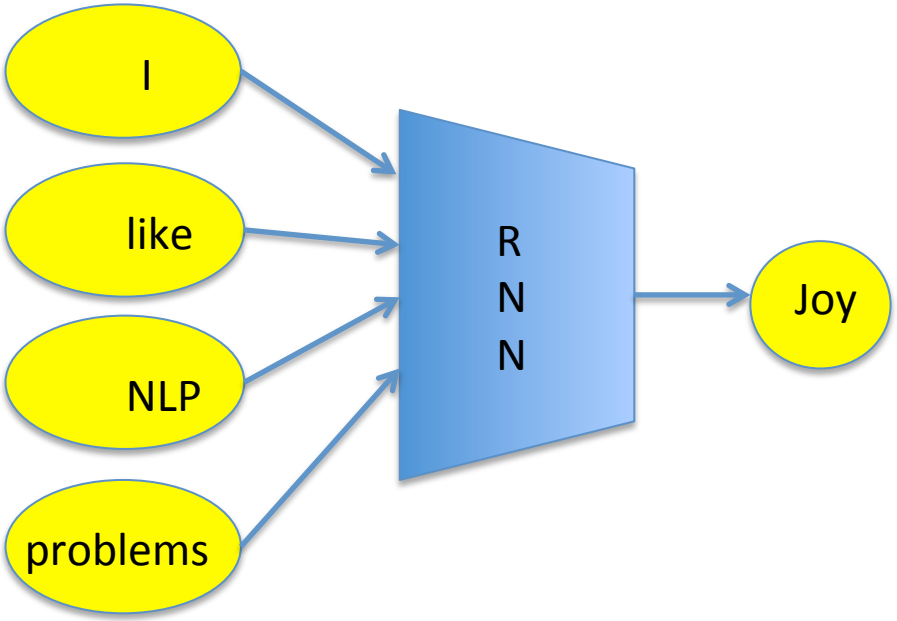
Recursive Deep Models for Semantic Compositionality of Affect and Sentiment Intensity Phrases Using Ranked Articulation Points

Shabnam Tafreshi

The George Washington University

Overview

- Hypothesis: Deep Learning Models outperform current Machine Learning Models for detecting Affect and Sentiment Intensity



Motivation

- Recursive Neural Tensor Network Models are more powerful models of composition
- The amount of trained data for classification task is less than other machine learning algorithms.

Recursive Neural Model

- Each sentence break into words and each word would be represented as a vector
- Computing the compositional vectors and use these vectors to determine the class of each phrase/words.
- Create a tree/binary tree such that the label of emotional/subjective phrases/ words become the articulation points of that tree.
- In each compositional step the algorithm gives a rank to the node based on the importance in the sentence for determination of sentiment or affect.
- The composition of all of the articulation points is the class of the sentence.