Team 18

EmoContext (SemEval '19)

Abstract

Detecting emotion in utterances is a tough problem for computational linguists due to the very many semantic, syntactic and contextual dependencies that need to be resolved. However, due to the high proliferation of text based communications today, there are more reasons to have such a system than ever before.

Problem Statement

Provided data for conversations over three turns, with the last turn annotated with its emotion, devise a system that can detect emotions in textual utterances from unannotated data.

Goals/Objectives:

To deliver a complete system that can efficiently accomplish the task while scoring among the top 5% of all participants submitting to the *SemEval '19* task, *EmoContext*, by the end of the contest.

Method, Requirements

As of now, we plan to use a mixture of feature engineering and machine learning tools by first analysing the data and then learning how to detect emotions. The exact requirements and methodology are still to be arrived at, at the time of writing of this document. Our initial aim is to take a deep learning architecture based on LSTMs, as introduced in this research paper.

Deliverables

There are three deliverables:
-   Scope document (i.e. this one)
-   End-to-end system prototype
-   Complete end-to-end system, all documentation

Milestones

-   Literature survey, setting up a development environment (Week 1)
-   Implementing Microsoft's paper (Week 2, 3)
-   Optimisation/looking at alternate methodology (Week 4 onwards)
-   Coding period ends/delivering system prototype (November, Week 1)
-   Final contest submission/product delivery (November, Week 2)