Product Aspect and Sentiment Analysis without Parsers

CS671 PROJECT PRESENTATION
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Motivation

- Why review summarization.
- Problems with existing solutions.
Goal

- Aspect extraction without using a parser.
- Sentiment analysis based on aspects.
- Summarization of information obtained in a concise manner.
Proposed Approach

- Aspect extraction

  - We follow Zhou and Xu’s implementation of SRL without parser, using a Deep Bidirectional LSTM.
  
  - Binary classification as aspects and non-aspects.
Basic structure

The screen is pretty good.
Proposed approach

- Sentiment analysis based on aspects
  
  - Use standard classifiers such as Naïve Bayes and Maximum Entropy model.

Proposed approach

- Summarization
  - Summarize sentiments for aspects.
  - Overall sentiment for the product.
Resources

- Amazon product review dataset dataset by Prof. Bing Liu.

- Wikipedia English corpus for training Word2Vec.

- Pre-trained Google News Word2Vec model.
Future work

- Identify properties of aspects which are good or bad.
- Use different languages
References


- Poria, Cambria, Wei Ku et al. “A Rule-Based Approach to Aspect Extraction from Product Reviews” (2014)


Thank you

QUESTIONS?