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Paper 1: A Challenge Data-set and Effective Models for Aspect Based Sentiment Analysis

Summary: This paper focuses on large scale multi aspect multi sentiment or MAMS data-set, a newly proposed idea where minimum two different aspects with two different polarities are present.

The methodology is given below:-

Embedding Layer-> Encoding Layer -> Primary Capsule Layer->Category Capsule Layer->CapsNet-BERT

In conclusion, the MAMS data-set helps to prevent aspect level sentiment classification degenerating into sentence level sentiment classification. The proposed capsule network outperforms other comparable methods.

Paper 2 : Aspect-based Sentiment Analysis by Role Flipped Machine Reading Comprehension

Summary: This paper brings a new idea where a unified ABSA task is investigated from the perspective of Machine Reading Comprehension(MRC). The proposed paradigm is Role flipped MRC or RF-MRC which predicts result based on aspect term extraction or opinion term extraction.

Methodology includes as follows :

The formulation of unified ABSA->Examine ABSA from MRC perspective ->Input Representations->Initial Terms Extraction->Role Flipped Module->Matching Module->Training

Compared methods includes pipeline model & unified model.

At last, this paper propose new RF-MRC paradigm where aspect terms or opinion terms are taken as queries and related terms are considered as answers. The output demonstrate the upper-hand of this framework.

Paper 3 : Dual Graph Convolutional Networks for Aspect - based Sentiment Analysis

Summary : In this paper, dual graph convolutional network is proposed to overcome the inaccuracy of the dependency parsing result & complexity of online reviews which uses graph neural networks in terms of aspect based sentiment analysis.

The DualGCN follows the below methodology:

Syntax-based GCN (SynGCN)-> Semantic-based GCN (SemGCN)
-> Regularizer -> Loss Function

In conclusion, this paper tries to overcome the disadvantages of attention based and dependency based ABSA method & DualGCN model outperforms baselines according to benchmark data-sets.