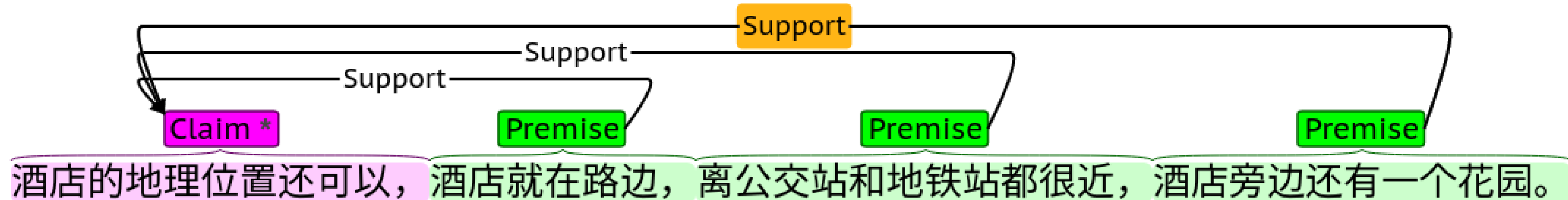


# 基于论辩挖掘的用户评论分析系统

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## 什么是论辩挖掘？

- 论辩挖掘是从文本中找出句子间的逻辑关系；解释用户观点背后的原因。
- 示例：

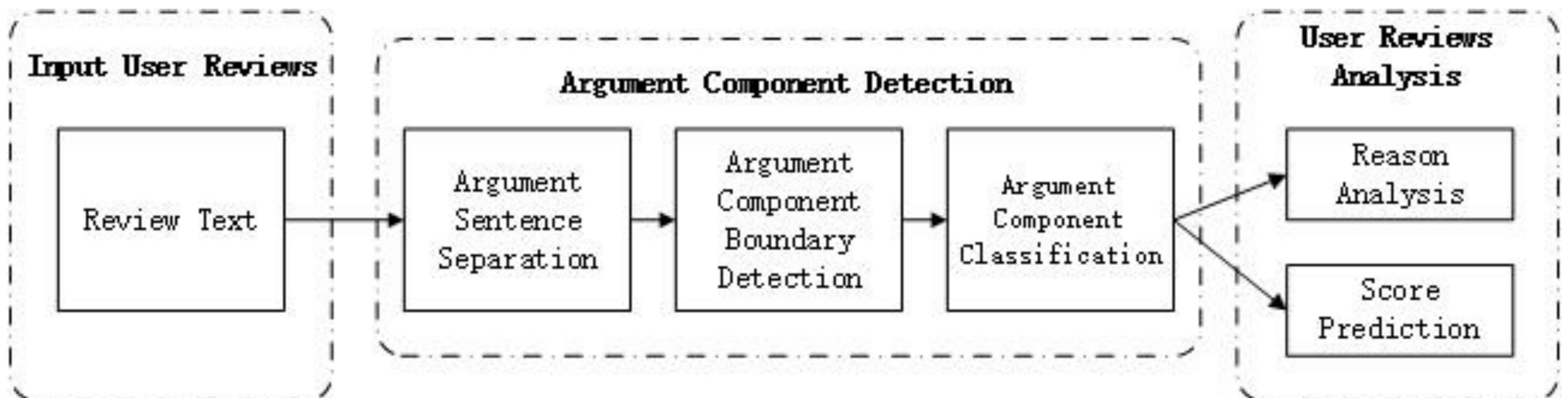


## 应用领域

本系统致力于使用论辩挖掘算法处理用户评论内容，对用户评论进行自动分析评估，在互联网飞速发展的今天具有重要意义。

## 系统简介

- 技术实现：本系统使用HTML + CSS + JavaScript + PHP + MySQL + Apache设计实现；
- 功能特点：任意选择上传用户评论到后台数据库，一键实时分析，自动生成并显示论辩组件，根据相关规则为评论打分，并解释分析原因。



## 核心算法

- 输入用户评论文本，使用基于深度学习的方法进行论辩组件边界的检测；
- 使用强化学习的模型对论辩组件进行自动地分类，得到Claim, Premise等组件的分类结果；
- 基于论辩挖掘分类的结果以及文本的相关特征，对用户评论的质量进行分析并预测helpfulness分值。

## 系统展示

### 用户评论分析系统

编号	名称	修改日期
1	hotel_101092	2017-03-24 10:00:11
2	hotel_101408	2017-03-24 10:00:11
3	hotel_101941	2017-03-24 10:00:11
4	hotel_110717	2017-03-24 10:00:11
5	hotel_112416	2017-03-24 10:00:11
6	hotel_114555	2017-03-24 10:00:11
7	hotel_114886	2017-03-24 10:00:11
8	hotel_116950	2017-03-24 10:00:11
9	hotel_117234	2017-03-24 10:00:11
10	hotel_118094	2017-03-24 10:00:11
11	hotel_119387	2017-03-24 10:00:11
12	hotel_120758	2017-03-24 10:00:11
13	hotel_123413	2017-03-24 10:00:11
14	hotel_123694	2017-03-24 10:00:11
15	hotel_132783	2017-03-24 10:00:11

**hotel\_101092**

Stunning views in a good "corporate" hotel I was stayed at this hotel for 4 nights in mid January for a conference. This hotel is right on Lake Geneva and you get the most amazing views of the lake and the mountains. But make sure when you book and check in that you get one of the rooms facing the lake - or you may find yourself in a room overlooking the road at the back. I have posted photos of how lovely the lake and mountains look in winter. The hotel has a high star rating (5 stars).

分析 得分: 8/10

**论辩组件**

- Major\_Claim** >> Stunning views in a good "corporate" hotel
- Background** >> I was stayed at this hotel for 4 nights in mid January for a conference.
- Premise** >> This hotel is right on Lake Geneva and you get the most amazing views of the lake and the mountains.
- Claim** >> But make sure when you book and check in that you get one of the rooms facing the lake - or you may find yourself in a room overlooking the road at the back.
- Premise** >> I have posted photos of how lovely the lake and mountains look in winter. The hotel has a high star rating (5 stars) but I am not sure why.
- Claim** >> It is a perfectly good hotel - for business and the conference I was at.
- Claim** >> The rooms are small but comfortable and well equipped for the traveller who is not going to spend much time in the room - and has

**原因**

1. 文本中含有多个claim, 表明内容比较丰富, 对多个方面都给出了评价;
2. claim对应多个premise, 表明对于每个方面的评价都给出了比较详细的事实依据。