华东师范大学
计算机科学与软件工程学院

学期总结汇报

报告人：施力业

导师：贺樑老师、吴雯老师

Part 1

成果汇报

成果汇报

研究基于评论的推荐

- 修改一篇论文并投Information Science期刊，正在审稿中
- 写了一篇论文投Knowledge-Based Systems期刊，正在审稿中

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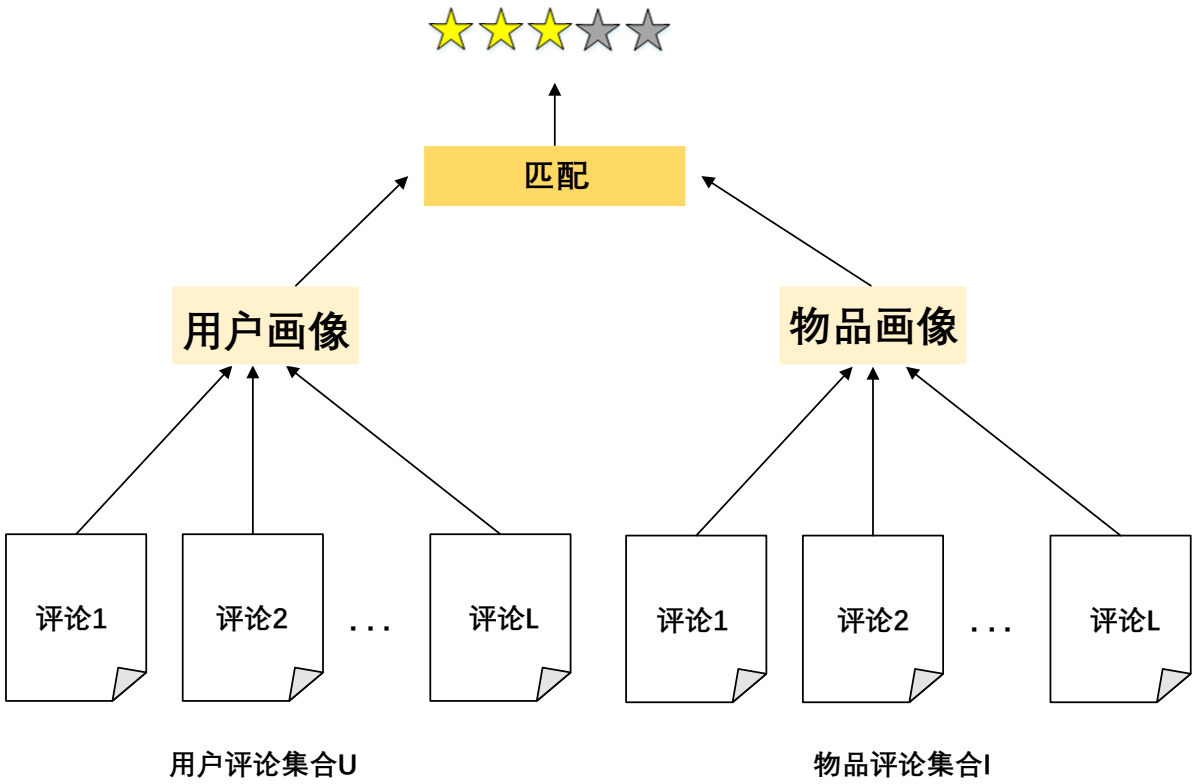
计算机科学与软件工程学院

基于评论的推荐

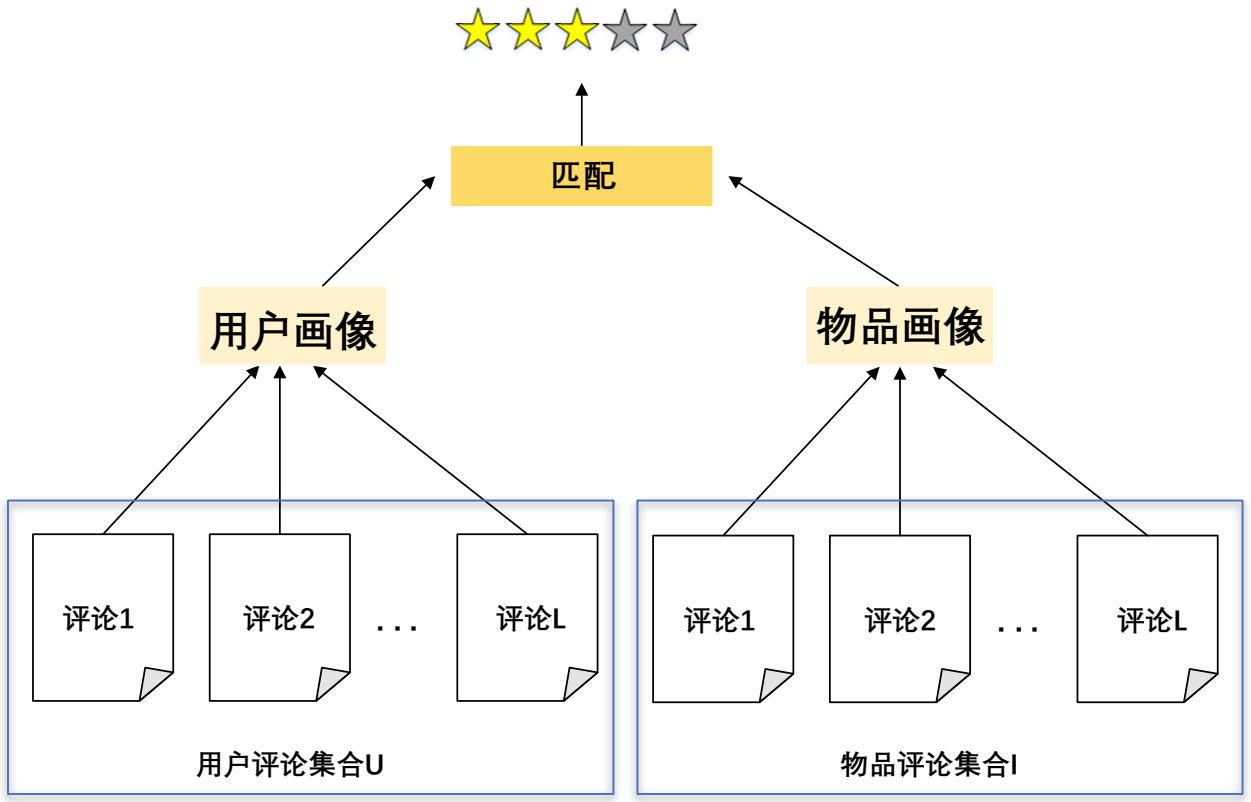


问题描述

基于评论的推荐

重点：

评论建模阶段



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现有工作：只抽取物品特征，忽略了关联的情感

不过价格还是挺高的。

物品特征　　情感

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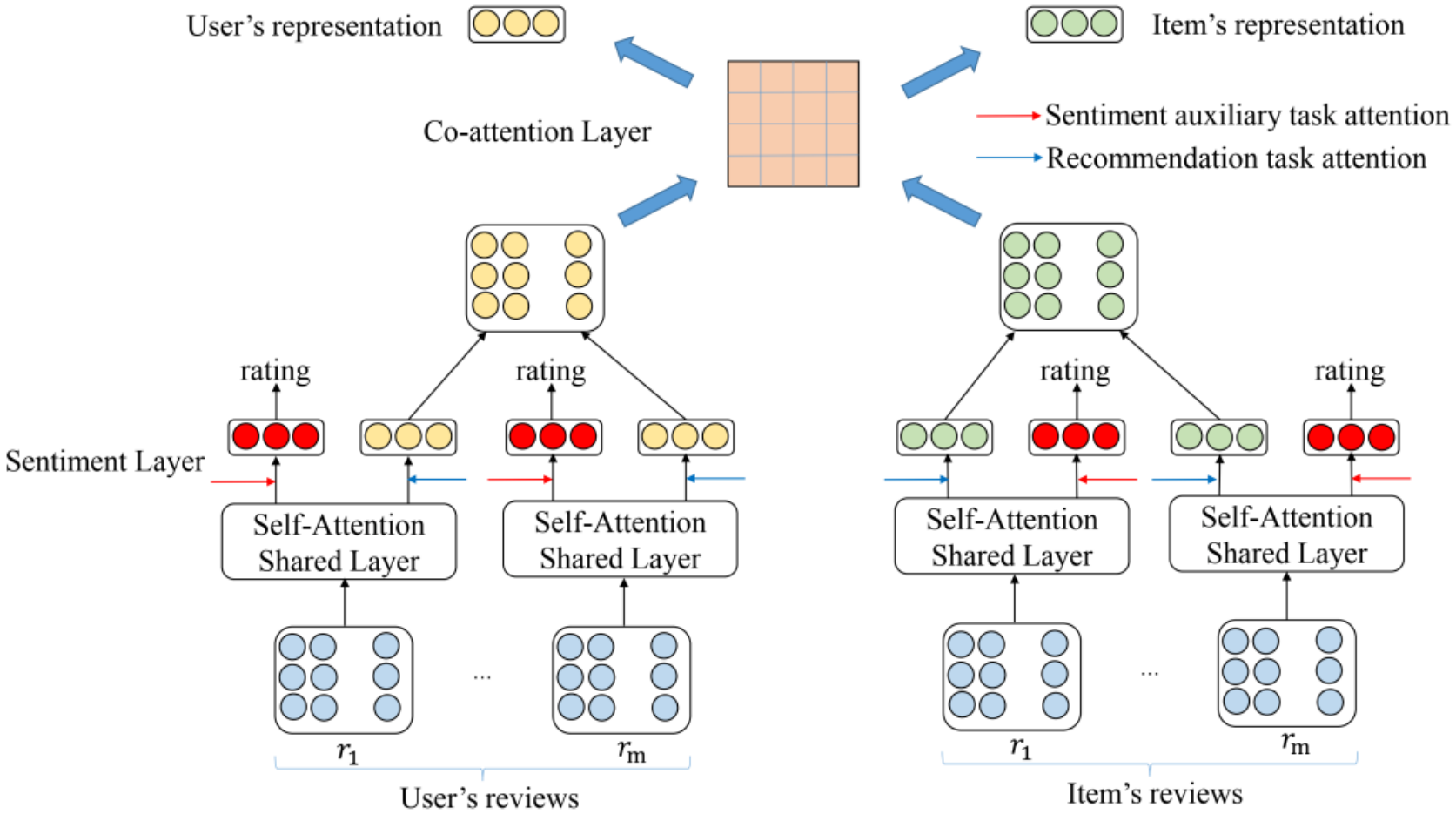
我们的方法：

用情感分类辅助任务帮助推荐任务学习特征词对应的情感词。



成果1

我们的方法：用情感分类辅助任务帮助推荐任务学习特征词对应的情感词。

it is now my favourite brunch place in toronto their patio and decor is rustic and beautiful

japanese tapas place and wonderful cocktails great for groups but also having communal tables

i love big beautiful whole foods markets,we had a very energetic and knowledgeable tour guide bill

(a) words that recommendation task without sentiment analysis concerns

it is now my favourite brunch place in toronto their patio and decor is rustic and beautiful

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论文投稿到Information Science期刊，正在审稿中

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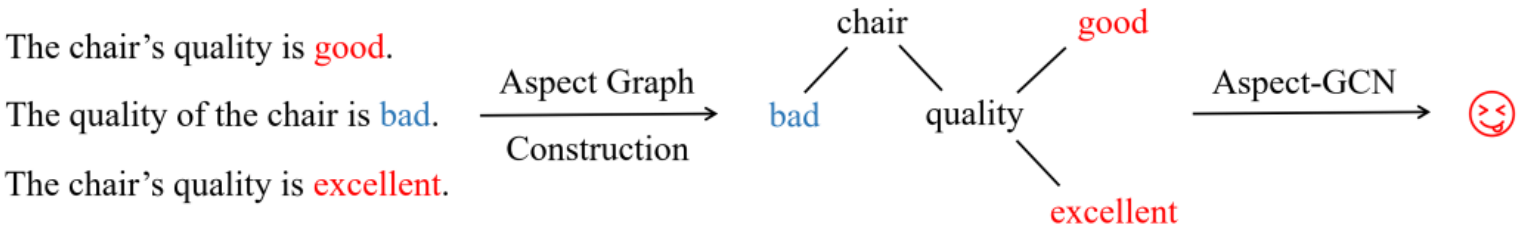
现有工作：单词层面的建模还不够好



单词图

成果2

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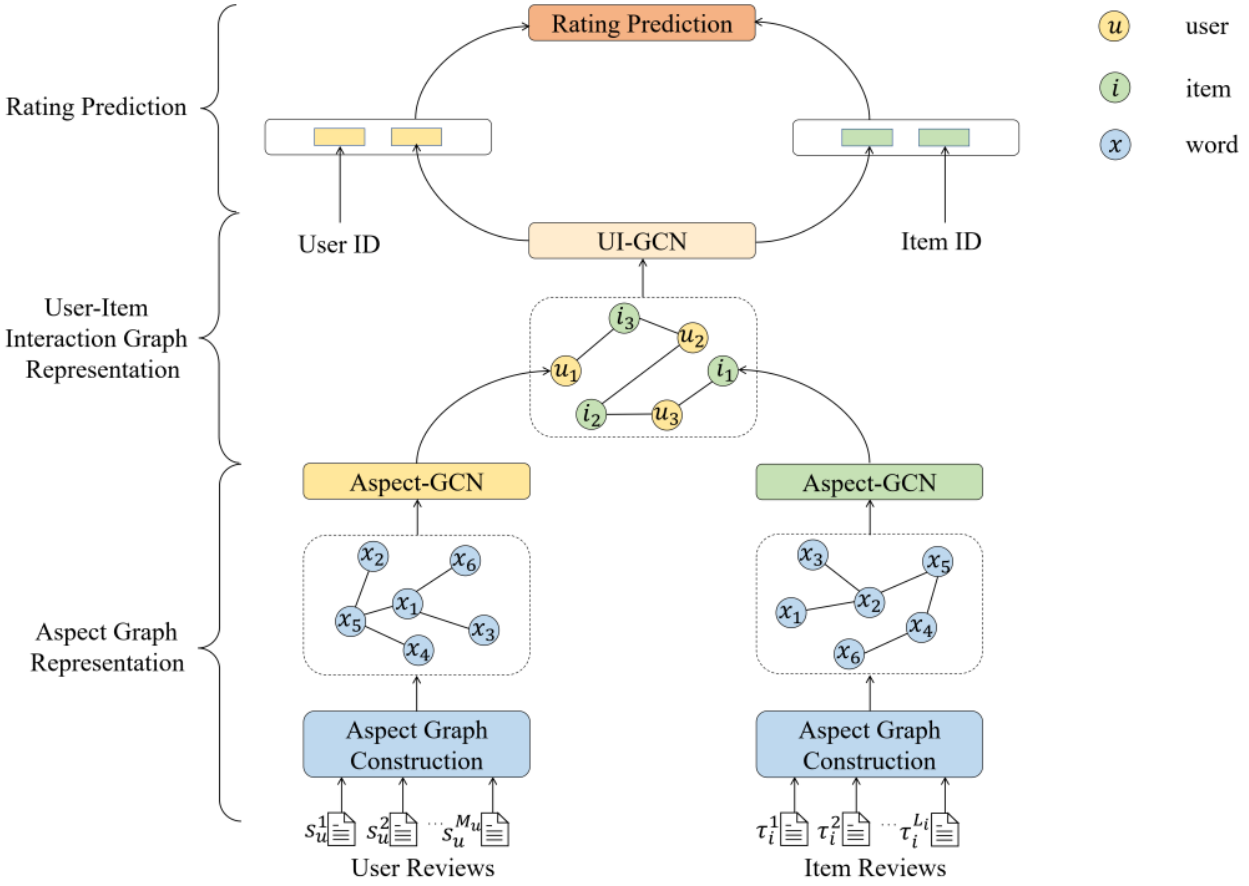
我们的方法：从多个评论中构建单词图，并且构建用户-物品交互图建模用户喜好和物品特征的交互



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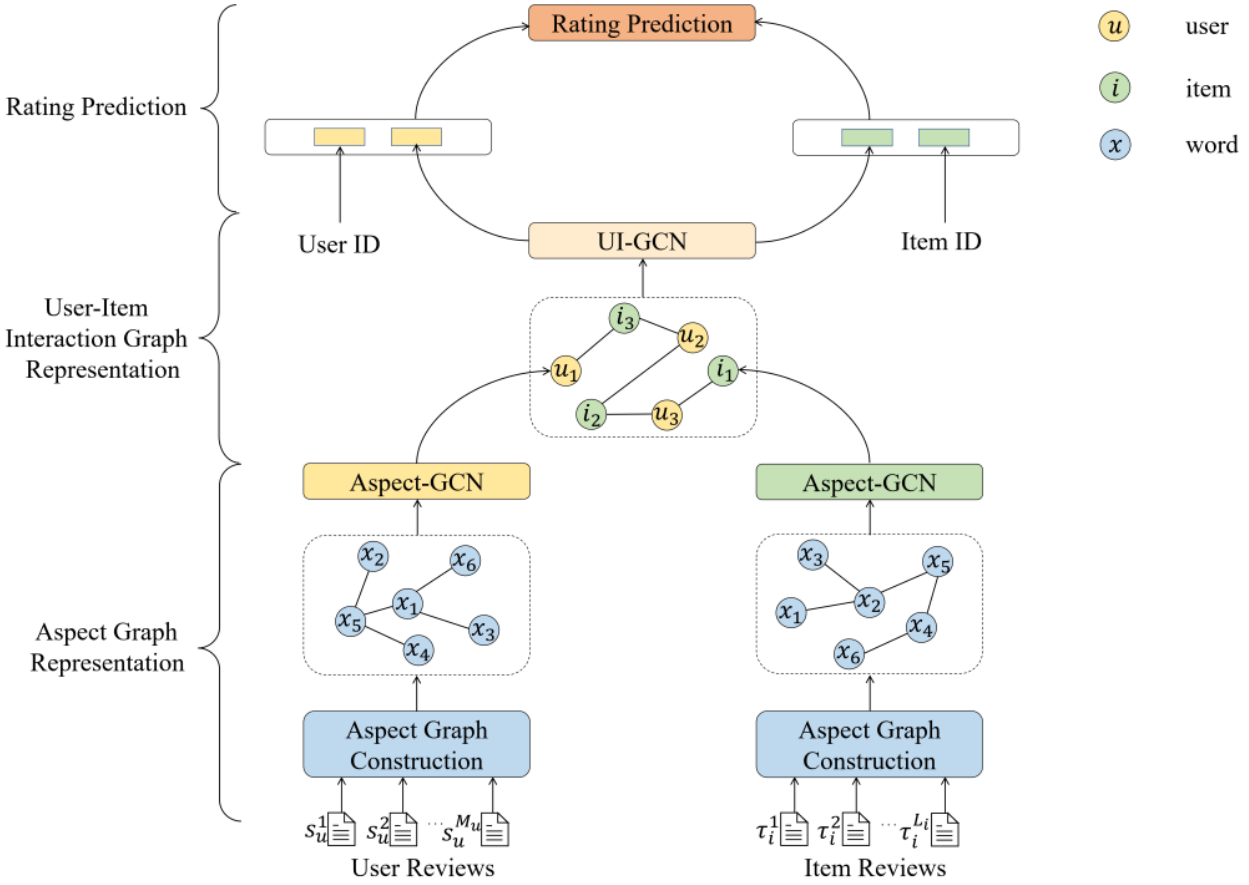

论文投稿到Knowledge-Based Systems期刊，正在审稿中

Part 2

未来方向

未来方向

现有工作：没有很好的考虑时序信息

"...It is **an AMAZING feast of vegetable deliciousness**. It came with two thick ..."

"... I **used to** love their vegetable platter which is **now off the menu** ..."

2011/10/12 → **2014/6/23**

同一个用户在不同时期的评论

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现有工作：没有很好的考虑时序信息

同一个用户在不同时期的评论

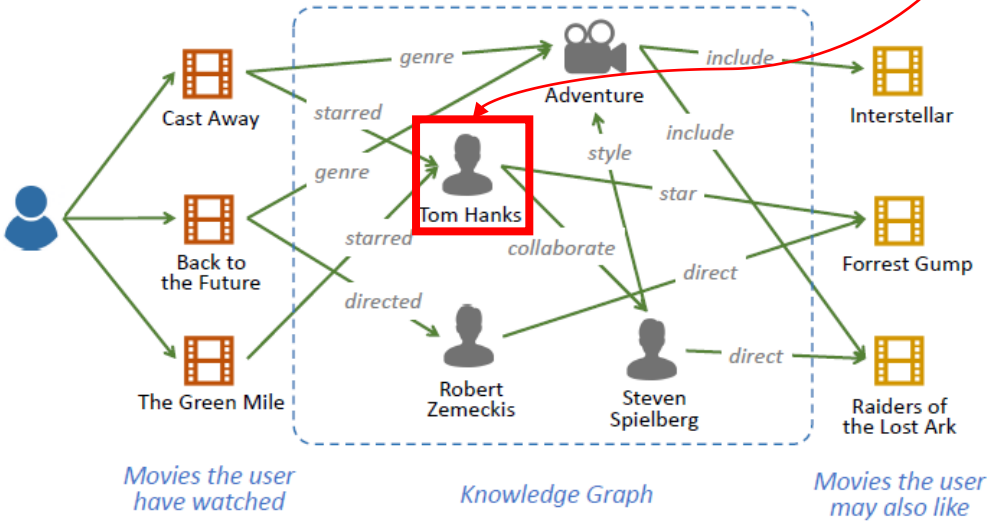
未来研究点1：

用户兴趣分为长期兴趣和短期兴趣，把总的时间分成多段，用RNN或者GNN建模每段时间用户短期兴趣。

未来方向

现有工作：忽略了外部知识的引入

用户评论：This movie is perfect, I am a big fan of Tom Hanks and it is always a wonderful fighting scene.



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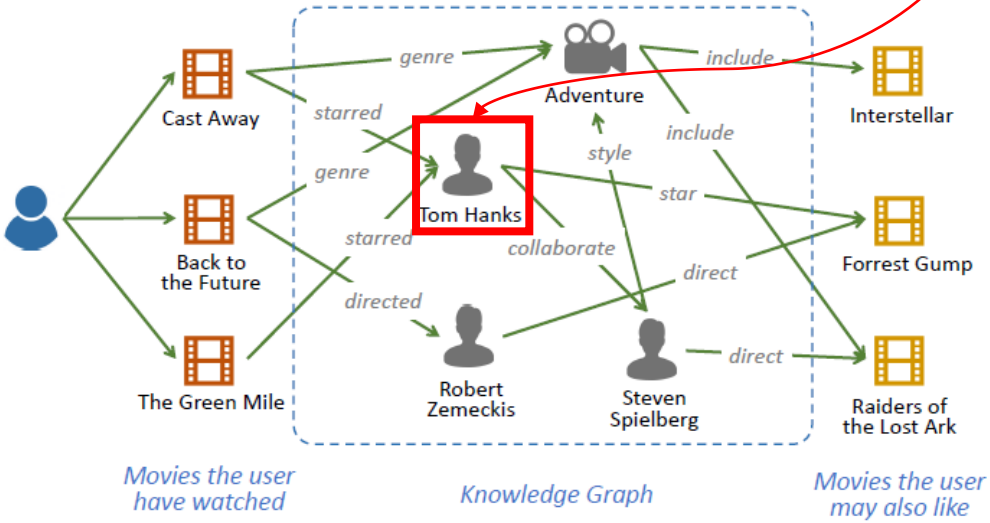

未来研究点2：

对于每个用户，抽取用户历史评论中所有的实体信息，构成一张知识图谱图。

未来方向

现有工作：单个数据集上用户评论不多导致效果不好

例子：

在Toys数据集上，用户A只有5个评论 -----> 难建模

在Automotive数据集上，用户A有100个评论 -----> 较易建模

未来方向

现有工作：单个数据集上某个用户评论不多导致效果不好

Automotive - *Motorcycle Handlebar*

Yeah these are Bad A$$, looks good and very easy to install. One thing is the color, they are no way near as green as picture on amazon, they are very dark green NOT lime, but they still look GREAT . **5 stars** all day! …… I used hand soap as a lube on throttle grip helps it slide on throttle sleeve easier..... **Super fast shipping**, two days early on ship date… customer service is an **A+++**, thank you so much

Toys & Games - *DoDoeleph Syma Drone*

First off **SUPER FAST SHIPPING** - this drone is completely worth the money - so much fun - easy to control - I would give it **10 stars** - 100% satisfied - highly recommended - **A+++** sellers with the product to back it up - thank you

Dan

未来方向

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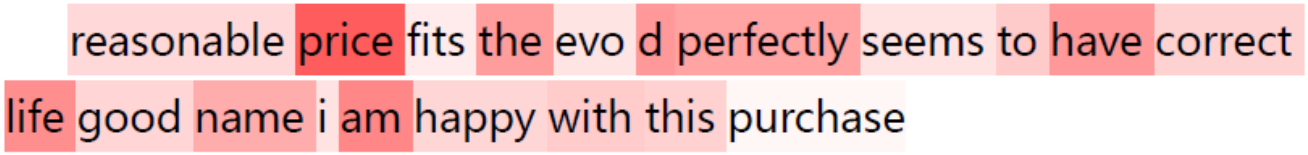
未来研究点3：

采用fine-tune的策略，先在用户行为数据充分的数据上进行训练，然后再在数据少的数据集上进行微调。

谢谢各位老师！

CNN+Attention