

斯坦福大学最甜网剧：知识图谱CS520面向大众开放啦！

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来自专辑

卖萌屋@自然语言处理



一只小狐狸带你解锁炼丹术&NLP秘籍

受本次疫情的影响，斯坦福大学的2020春季知识图谱课程——CS520面向公众线上开放啦！连课名都是爱你的形状！

Course Info

Knowledge graphs have emerged as a compelling abstraction for organizing world's structured knowledge over the internet, capturing relationships among key entities of interest to enterprises, and a way to integrate information extracted from multiple data sources. Knowledge graphs have also started to play a central role in machine learning and natural language processing as a method to incorporate world knowledge, as a target knowledge representation for extracted knowledge, and for explaining what is being learned. This class is a graduate level research seminar featuring prominent researchers and industry practitioners working on different aspects of knowledge graphs. It will showcase how latest research in AI, database systems and HCI is coming together in integrated intelligent systems centered around knowledge graphs.

Covid-19 Update

The seminar will be offered over Zoom as per the planned schedule. As the start of the spring quarter has been delayed to April 6th, Stanford students taking the course for credit are not required to attend the session on March 31st. The sessions will be recorded, and the recordings posted here as and when they become available.

Webinar Information

The seminar is open to public. Remote participants may join the seminar through **Zoom**. To be added to the mailing list for course announcements for guests, please visit [here](#).

简单翻译一下重点：今年的CS520面向公众开放，大家可以通过远程视频软件Zoom听课。

课程大纲：

1. What is a knowledge graph?
2. How to create a knowledge graph?
3. What are some advanced knowledge graphs?
4. What are some knowledge graph inference algorithms?
5. How to evolve a knowledge graph?
6. How do users interact with knowledge graphs?
7. What are some prelevant graph engines in industry?

8. What is the role of knowledge graphs in machine learning?
9. What are some high value use cases of knowledge graphs?
10. What are some open research questions on knowledge graphs

课程主页：

<https://web.stanford.edu/class/cs520/>

课程每周一次，不过是从3月31日开讲的，所以已经开讲三次了(/ω\)不过没事，还好课程是有回放的（课程主页里有YouTube链接和materials）。看了一下课程的Speaker，学术界和工业界的大佬都有，而且每一期都不一样，糟了，是心动的感觉！

另外，这一次的追剧计划就不再订阅号里逐篇推送啦~有想一起追剧的小伙伴可以在订阅号后台回复关键词【CS520】加入CS520追剧群和小夕一起追剧交流~

扫盲

知识图谱是一个很早就存在的概念，作为知识的一种结构化表示形式，已经渗透到了互联网业务的方方面面。搜索、推荐、问答这几大NLP主流应用场景都离不开知识图谱的帮助，各个专业领域如金融、医疗也都在大力构建行业大脑，进行知识沉淀。19年大火的Magi也是凭借其在开放域知识抽取的能力获得大家的青睐。

The screenshot displays the Magi knowledge graph interface. At the top, a search bar contains the text '斯坦福' (Stanford) with a blue arrow icon to its right. Below the search bar, the results are organized into two main sections, each with a green circular icon containing the number '100'.

Section 1: 斯坦福 (Stanford)

- 描述 (Description):** A list of descriptive phrases including '美国面积第二大的大学', '全世界科技创新的中心', '美国面积第六大的大学', '美国首家在校内成立工业园区的大学', '铁路大王', and '硅谷之父'.
- 属性 (Attributes):** A section titled '终身教授' (Lifetime Professor) with a green button labeled '张首晟' (Zhang Shousheng) and three dots.
- 标签 (Tags):** A section titled '大学' (University) with a list of tags: '大学', '学校', '名校', '高校', '学府', '机构', '院校', '公司', '世界名校', '美国名校', '商学院', '品牌', '教授', '私立大学', and '企业'.
- 近义项 (Synonyms):** A section titled '史丹福' (Shi Danfu).

Section 2: 斯坦福大学 (Stanford University)

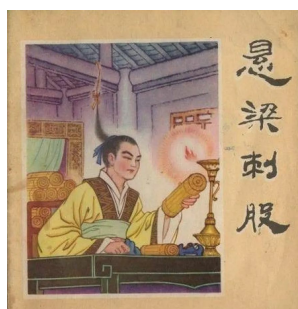
- 描述 (Description):** A list of descriptive phrases including '世界上最杰出的大学之一', '美国面积第二大的大学', '世界著名私立研究型大学', '美国的一所私立大学', '世界著名的私立研究型大学', and '美国西部的学术中心'.
- 属性 (Attributes):** A section titled '终身教授' (Lifetime Professor) with two green buttons labeled '张首晟' (Zhang Shousheng) and '吴恩达' (Wu En-da), each followed by three dots.
- 占地 (Area):** A section with two green buttons labeled '35平方公里' (35 square kilometers) and '自控力' (Self-control), each followed by three dots.

主要学习来源 (Main Learning Sources): A list of links to external sources, including '斯坦福大学留学一年学费要准备多少', '美国加州有名的大学有哪些?', '苔花_新浪博客', 'Google勇敢新世界: 两个天才的相遇_tomcat_新浪博客', '南科大2019年开学典礼 | 本科生代表白钰瀛发言', '驾者无疆美国行1: 创意之城旧金山 - 旧金山旅游攻略 | Yododo 游...', '华人物理学家张首晟离世: 从一粒沙看世界张首晟|阁楼|物理学家...', '张首晟意外自杀 他身后是风雨如晦的资本市场', '遭FBI调查、投资区块链巨亏...张首晟教授自杀也许不仅仅是忧郁症...', and '除了哈佛, 美国总统子女读的都是什么大学? _曾敏敏老师_新浪博客'.

在BERT把NLP模型的语义理解能力提升一个level之后，NLP下一阶段的一个重要目标就是让模型具备常识推理能力，如何利用外部知识对当前输入进行更好的理解。而知识图谱正是一种优质的知识载体，它所存储的内容不仅具有良好的可解释性，也可以通过

TransE等算法进行编码，融入到神经网络的计算中。同时目前ERNIE、K-BERT等优秀的前沿成果也成功将知识图谱与BERT进行了结合。

不要观望啦，搞起鸭！



可能喜欢

- [Google | 突破瓶颈，打造更强大的Transformer](#)
- [斯坦福CS224n追剧计划【大结局】：NLP和深度学习的未来](#)
- [ACL2020 | 对话数据集Mutual：论对话逻辑，BERT还差的很远](#)
- [ACL2020 | FastBERT：放飞BERT的推理速度](#)



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