



Homework And Interaction

Jie Tang

Department of Computer Science & Technology
Tsinghua University

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- Coursework
- Class Interaction
- Extracurricular Learning
- Course Extension
- Course Resources

Grading

- Homeworks (40%)
 - 4 homeworks (10 points each time)
- Project (60%)
 - 2-3 students to form a team
 - Apply machine learning to solve a real problem
- Others (Additional 10%~15%)
 - Gaining Extra Benefits through Positive Behavior
 - Class Interaction, Extracurricular Learning, Participation in Seminars, etc.

Homework (40%)

- Transformer
 - Homework1: 100 lines of code implementation
- Pretraining Models
- Post-training
 - Homework2: fine-tuning of text-based large models
- Self-learning
- Chat Models
- Visual Models
 - Homework3: application of multimodal large models
- Recent New LLMs
- Applications
 - Homework4: reproduction of cutting-edge large model

- The course imposes strict requirements on students: **the assignments should be quantified** as much as possible when assigned.
- The assessment plan is reasonable and able to measure students' learning outcomes: **each indicator clearly defines the grading criteria.**

Project (60%)



- 2-3 students to form a team
- Apply machine learning to solve a real problem
 - Choose one task at Kaggle (<http://www.kaggle.com/competitions>)
- We expect to see
 - Problems (**what?**)
 - Motivations (**why?**)
 - Techniques (**how?**)
 - Results & Analysis (**did you verify what you claimed above?**)
 - Conclusions
- Submit materials:
 - a proposal (**6th week**), a mid-term report (**9th week**), a final report (**17th week**), and the implementation code (**17th week**)
- All reports should be in NIPS format, written in English
 - Style file: <https://neurips.cc/Conferences/2023/PaperInformation/StyleFiles>
- Proposal presentation (**11th week**), Poster presentation (**17th week**)

Project (60%)

- We are setting up a paper submission system on **Openview** to facilitate students' future submissions and peer reviews directly on the platform.
- The top ten projects will eventually be showcased in the class.
- There will be further guidance and notifications in the future.

The image shows a screenshot of the OpenReview.net submission interface on the left and a presentation slide on the right.

OpenReview.net Submission Interface:

- Header:** OpenReview.net logo, search bar, and navigation links (Notifications, Act).
- Active Venues:** A list of venues including TMLR, Computo, DMLR, COLM 2024 Conference, PKU 2023 Fall CV, YouthLACIGF 2024 Edit, CSAE 2024 Conference, MAEM 2024 Conference, ISAPh 2024 Symposium, ACMMM 2024 Tutorial, TQC 2024 Conference, and IJCAI 2024 Workshop D.
- Form Fields:**
 - Title*:** Title of paper. Add TeX formulas using the following formats: $\$In-line Formula\$$ or $\$Block Formula\$$.
 - Authors*:** Search author profile by first, middle and last name or email address. All authors must have an OpenReview profile prior to submitting a paper. Example: Jinhua Du.
 - Keywords*:** Comma separated list of keywords.
 - TL;DR:** "Too Long; Didn't Read": a short sentence describing your paper.
 - Abstract*:** Abstract of paper. Add TeX formulas using the following formats: $\$In-line Formula\$$ or $\$Block Formula\$$.
- Buttons:** Write, Preview.

Presentation Slide:

- Header:** 高级机器学习 (Advanced Machine Learning).
- Section:** 简介 (Introduction).
- Text:** 高级机器学习课程是清华大学计算机系研究生课程之一，由唐杰老师授课。在2020春季学期的课程中，同学们以单人或组队的形式研究了许多机器学习相关领域内有挑战的课题，涵盖计算机视觉、自然语言处理、强化学习、推荐系统、数据挖掘等各个方面，也包含前沿领域的应用。以下为大家的课题展示。
- Section:** COVID-19.
- Footer:** Online Social Behavior Analysis During COVID-19, Spring @THU.

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Interaction

- Gaining Extra Benefits through Positive Behavior
 - Additional 10%~15%
- Specifically Include
 - Class Interaction
 - Extracurricular Learning
 - Proactive Questioning
 - Attend Talks
 - Participate in Panels

Class Interaction

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📊 作业成绩

高级机器学习 (80240603-0)

课内搜索

🔍 搜索

课程讨论

+ 发表话题

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序号	主题	发表人
1	Class3: Transformer	杜晋华
2	Class2: DNN、CNN、RNN	杜晋华
3	Class1: Overview And ChatGLM	杜晋华

共 3 条数据

话题 Class1: Overview And ChatGLM

编辑 回复 开

杜晋华

楼主

同学们有针对第一次课的任何问题都可以在该区域发帖讨论，老师&助教&其他同学看到后可以及时跟帖。

这里提供一些例子抛砖引玉~

参考议题：

- AI的下一阶段发展范式
- 课程整体教学内容可以包括哪些你感兴趣的话题
- 课程作业构成希望有一些个性化偏向
- GLM在Memory方面做过哪些探索
- 下一代GLM是否遵循o1还是会有其他方面突破
- 个人对算力支持或者课堂提供其他方面的支持有哪些需求

楼主：2024-10-09 13:54

编辑 回复

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点赞 回复数 0 浏览次数 2

发表话题回复

切换至编辑器

Extracurricular Learning

课程文件

电子教案 | 相关论文 | 相关书籍 | +

序号	标题	简要说明
12	A3.3 GPT-2	
11	A3.2 Transformer	
10	A3.1 word2vec	
9	A2.3 CNN	
8	A2.2 RNN	
7	A2.1 DNN	
6	A1.6 Claude-3	
5	A1.5 deepseek-v2	
4	A1.4 gemini_v1.5	
3	A1.3 glm-4	
2	A1.2 gpt-4	
1	A1.1 llama-3	

课程文件

+ 新增文件

电子教案 | 相关论文 | 相关书籍 | +

"预览"须设置允许浏览器弹出窗口

序号	标题	简要说明	生效时间	浏览下载率	文件	操作
3	Probabilistic Graphical Models	Daphne Koller, Nir Friedman. P...	2024-09-12 10:21	41/91	pdf 8.4M	下载 预览 编辑 删除
2	Pattern Recognition and Machine Learning	Christopher M. Bishop. Pattern...	2024-09-12 10:19	42/91	pdf 7.1M	下载 预览 编辑 删除
1	Deep Learning	Yoshua Bengio, Ian J. Goodfellow...	2024-09-12 10:14	39/91	pdf 304K	下载 预览 编辑 删除

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序号	主题	发表人	发帖时间	回复/浏览	最近更新时间
1	论文讨论: Transformer	杜晋华	2024-10-09 14:28	0/2	2024-10-09 14:28
2	论文讨论: DNN、RNN、CNN	杜晋华	2024-10-09 14:27	0/1	2024-10-09 14:27
3	论文讨论: LLM	杜晋华	2024-10-09 14:26	0/2	2024-10-09 14:26
4	书籍讨论: Probabilistic Graphical Models	杜晋华	2024-10-09 14:08	0/2	2024-10-09 14:08
5	书籍讨论: Pattern Recognition and...	杜晋华	2024-10-09 14:08	0/1	2024-10-09 14:08
6	书籍讨论: Deep Learning	杜晋华	2024-10-09 14:07	0/3	2024-10-09 14:07

Proactive Questioning

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高级机器学习 (80240603-0)

课程答疑

未回答完的问题 | 已回答完的问题 | 问题集锦

序号标题

暂无数据

AML2024学习群 (92)

沈智杰-2024319232

请问还有同学没有组队的吗? 二缺一, 欢迎联系 🙏🙏🙏

昨天 11:54

@所有人 【报告预告】

大家好! 10月23日周三晚上的课程中, 我们很荣幸邀请到Carnegie Mellon University(CMU)的 Lei Li 教授为大家做报告, 欢迎大家踊跃参加&与嘉宾交流~

【主题】The Science of Evaluation and Alignment for Large Language Models

【讲者】Lei Li

【详情】参见下方PDF或网络学堂

LLM evaluation and alignment talk - le...
177.8K
微信电脑版

搜索群成员

杜晋华... 唐杰 赖瀚宇... 23级直...

胡瑞麟... 刘晓倩... 蒋政-2... 陈伟亮...

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课程公告

Invited talk (Lei Li, CMU, former ByteDance): The Science of Evaluation and Alignment for Large Language Models

发布日期: 2024-10-08 10:59 对象: 全体学生-全体

Title: The Science of Evaluation and Alignment for Large Language Models

Speaker: Lei Li (Carnegie Mellon University, formerly worked at ByteDance)

Time: October 23rd (10月23日)

Abstract:

Can large language models (LLMs) fairly evaluate and refine model generation performance? Does a large language by luck? In this talk, we will present scientific methods for evaluating large language models for knowledge-intensive using LLMs as evaluators—an LLM favors its own output. We will further discuss post-training methods to refine and

Bio:

Lei Li is an Assistant Professor in Language T translation, trustworthy LLMs, and AI drug discovery. 2021 Best Paper Award, the CCF Young Elite Award in ACM SIGKDD dissertation award (runner-up), and is (tenured) at UC Santa Barbara. Before that, he was th at UC Berkeley. He led and developed ByteDance' algorithms have been deployed in products (Toutiao,

Web: <https://www.cs.cmu.edu/~leili/>

@所有人 【报告预告】

大家好! 10月23日周三晚上的课程中, 我们很荣幸邀请到Carnegie Mellon University(CMU)的 Lei Li 教授为大家做报告, 欢迎大家踊跃参加 & 与嘉宾交流~

【主题】The Science of Evaluation and Alignment for Large Language Models

【讲者】Lei Li

【详情】参见下方PDF或网络学堂

课程讨论 > 一般讨论区

注: 网络学堂课程讨论、课程答疑等各项功能均采用实名制访问, 访问记录均有日志记录, 发表话题内容或其他操作行为请遵守国家相关法律法规。

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话题 做个问卷调查, 本学期会邀请一些外面的讲者



唐杰



做个问卷调查, 本学期会邀请一些外面的讲者, 包括国际或者国内的知名学者和产业界的专家。大家希望多一些还是少一些, 比如希望我们邀请2次外面的讲者, 还是更多, 或者更少。大家可以回答一个数字就行

楼主: 2024-10-08 10:47

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点赞 回复数 0 浏览次数 14

Participate in Panels

LLM Panel

发布日期: 2023-12-17 20:24 对象: 全体学生-全体

各位同学:

我们即将举办一场LLM Panel活动, 邀请KEG实验室参与ChatGLM研究与开发的师生与您共同讨论, 并为您提供美味的咖啡。

如有兴趣, 请填写活动问卷: <https://www.wjx.cn/vm/hxGYHeb.aspx#>

LLM Panel会议日程:

日期: 12月19日 (周二)

时间: 下午15:30 - 16:30

地点: FIT楼1-515

3:20 PM - 3:30 PM: 签到

3:30 PM - 3:35 PM: 欢迎致辞

主持人开场致辞, 介绍LLM Panel的主题和目标

3:35 PM - 4:05 PM: 第一场讨论

挑选3~5个经典问题, 嘉宾进行回答

4:05 PM - 4:20 PM: 第二场讨论

现场提问环节, 嘉宾进行回答

4:20 PM - 4:25 PM: 总结和致谢

4:25 PM - 4:30 PM: 自由社交时间

计划举行两次Panel

请关注网络学堂和群内通知

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Course Resources

- Pay Attention to the Course **PPT**
- Pay Attention to **Various Learning Materials** Provided on the Online Learning Platform
- Actively **Communicate** with Classmates in the Group
- The **computational resources required** will be provided for everyone in the future.

Contact Information

- Jie Tang E-mail: jietang@tsinghua.edu.cn
- Teaching Assistant
 - TA: Wendi Zheng E-mail: zhengwd23@mails.tsinghua.edu.cn
 - TA: Jinhua Du E-mail: dujh22@mails.tsinghua.edu.cn
 - TA: Hanyu Lai E-mail: laihy23@mails.tsinghua.edu.cn
- WeChat Group and Online Learning Platform



Thank you !

Jie Tang, KEG, Tsinghua U
Download data & Codes

<http://keg.cs.tsinghua.edu.cn/jietang>
<https://github.com/THUDM>