# 千问 AI 与智谱 AI 应用场景 测试及横向对比报告

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#### 1. 大语言模型简介

大语言模型(Large Language Model, LLM)是一种基于深度学习的人工智能模型,特别擅长处理和生成自然语言文本。其通常基于 Transformer 架构,核心是自注意力机制,能够高效捕捉句子中的长距离依赖关系。

#### 特点:

**训练数据**:大语言模型在大量文本数据上进行训练,数据来源包括互联网、书籍、文章、维基百科等,通过训练学习语言结构、词汇意义及句子间关系。

**模型规模**:参数数量庞大,从数亿到数千亿不等,参数越多性能通常越好,但需更多计算资源和训练时间。

**应用领域**:涵盖文本生成(如写作辅助、新闻生成)、语言翻译、问答系统、对话机器人、文本分析(情感分析、主题分类)等。

**优缺点**: 优点是在众多自然语言处理任务中表现出色,能生成高质量文本并处理 多种语言任务; 缺点为训练和运行需大量计算资源,可能生成不准确或不恰当内 容,且可能存在数据带来的偏见。

#### 2. 在魔搭社区上部署大语言模型

#### 2.1 部署准备

在魔搭社区注册账号并绑定阿里云账号, 以获取 CPU 资源。

确定本次实验部署的大语言模型为: 通义千问 Qwen-7B-Chat、智谱 ChatGLM3-6B 对话模型。

#### 2.2 模型下载

通过云服务器命令行执行以下下载命令:

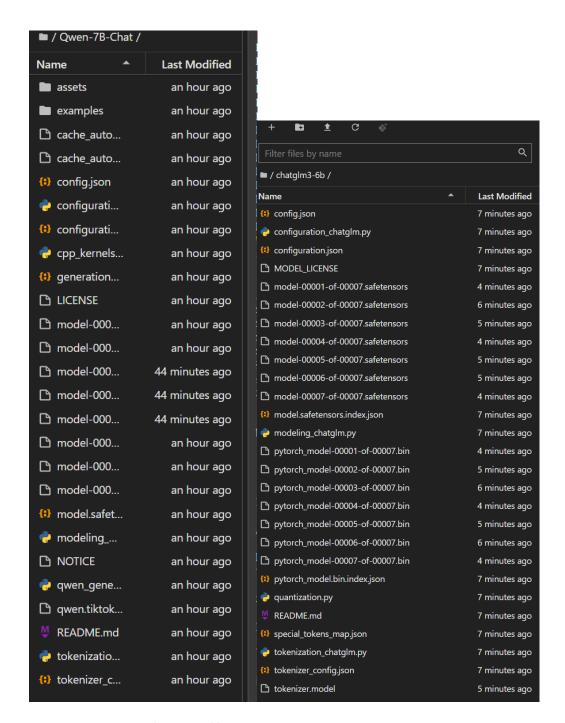
git clone https://www.modelscope.cn/ZhipuAl/chatglm3-6b.git git clone https://www.modelscope.cn/qwen/Qwen-7B-Chat.git

出现指定信息则表示安装大语言模型成功。

```
(qwen_env) root@dsw-1148500-79fb9bb47d-ssw49:/mnt/data# git clone https://www.modelscope.cn/qwen/Qwen-7B-Chat.git
正克隆到 'Qwen-7B-Chat'...
cemote: Enumerating objects: 554, done.
remote: Counting objects: 100% (56/56), done.
remote: Compressing objects: 100% (30/30), done.
remote: Total 554 (delta 30), reused 49 (delta 26), pack-reused 498
按收对象中: 100% (554/554), 16.47 MiB | 6.15 MiB/s, 完成.
处理 delta 中: 100% (294/294), 完成.
过滤内容: 100% (8/8), 14.38 GiB | 153.97 MiB/s, 完成.
(qwen_env) root@dsw-1148500-79fb9b47d-ssw49:/mnt/data#
```

```
(qwen_env) root@dsw-1144528-84f9f8587d-1tqgd:/mnt/data# (qwen_env) root@dsw-1144528-84f9f8587d-1tqgd:/mnt/data# git clone https://www.modelscope.cn/ZhipuAI/chatglm3-6b.git 正克降到 'chatglm3-6b'...
remote: Enumerating objects: 140, done.
remote: Total 140 (delta 0), reused 0 (delta 0), pack-reused 140 接收对象中: 100% (140/140), 47.10 KiB | 162.00 KiB/s, 完成处理 delta 中: 100% (64/64), 完成正在更新文件: 100% (28/28), 完成过滤内容: 100% (15/15), 23.26 GiB | 118.60 MiB/s, 完成(qwen_env)root@dsw-1144528-84f9f8587d-1tqgd:/mnt/data# _
```

#### 2.3 模型文件夹展示



#### 3. 运行大语言模型并进行问答测试

在相应环境中测试不同大语言模型的特点,针对以下问题查看回答:

- 请说出以下两句话区别在哪里?冬天:能穿多少穿多少夏天:能穿多少穿多少
- ▶ 请说出以下两句话区别在哪里?单身狗产生的原因有两个,一是谁都看不上,二是谁都看不上
- 他知道我知道你知道他不知道吗?这句话里,到底谁不知道?
- 明明明明明白白白喜欢他,可她就是不说。这句话里,明明和白白谁喜欢谁?
- 领导与小明对话中"意思"的含义分析(领导:你这是什么意思?小明:没什么意思。意思意思。领导:你这就不够意思了。小明:小意思,小意思。领导:你这人真有意思。小明:其实也没有别的意思。领导:那我就不好意思了。小明:是我不好意思)

进入工作目录, 编写测试脚本, 运行。

#### 3.1 问题 1

#### 千问:

#### 智谱:

```
(gen_em) root@dow 114828 94191887d itagd:/mnt/workspaced python run_zhipusi.py
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```

#### 3.2 问题 2

#### 千问:

#### 智谱:

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```

### 3.3 问题 3

#### 千问:

```
(see, me) rootder-148507-791686476 sas49/ant/seckspaces pythen nn.geen.py
/ppi.conds/eres/qeen.art/lib/phon.10/site-pelsages/transformers/utils/generic.py-311: User#arming: torch.utils_pytree_register_pytree_node is deprecated. Please use torch.utils_pytree_register_pytree_node
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| 8/8 [00:18:00:00, 2.29s/it]
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#### 智谱:

```
(gen_em) root@dev 1146228 81978587d-ltogd:/mnt/workspaceS python run_shipusi.py
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#### 3.4 问题 4

#### 千问:

```
(qee_qm) rootdds=114500-79f/dbbffd=ss49:/mnf/workspaced=python run_qwen_py
/opt/conds/www.qwen_qmv/lbf/yython3.10/site-packages/transformers/utils/generic_py:311: UserWarming: torch_utils_pytree_register_pytree_node is deprecated. Please use torch_utils_pytree_register_pytree_node instead.
torch_utils_pytree_register_pytree_node.
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| | 8/8 (00:59-00:00, 7.43s/st]
```

#### 智谱:

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```

#### 3.5 问题 5

#### 千问:

```
(gen_cm) roofder-1185007-791788476-76 sav9:/mart/workspaces python run_gen_ny / roofder-1185007-79178840176-sav9:/mart/workspaces python run_g
```

#### 智谱:

```
(general) roof-flowr-14-6452-94078526-11 togd: /mnt/workspace3 python run_shipsal.py
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```

#### 4. 横向比较不同的大语言模型

#### 4.1 模型综合对比

#### (一) 语义理解类: 冬夏穿衣语句差异

**问题**:请说出以下两句话区别在哪里?1、冬天:能穿多少穿多少2、夏天:能穿多少穿多少

**千问 AI 回答**: 从健康需求和行为目的出发, 剖析冬天 "多穿保暖"、夏天 "少穿散热" 的语义逻辑, 强调因季节导致的行为指向差异(如 "冬天为抵御严寒, 夏天为避免过热"). 回答更贴近生活场景的因果关联。

**智谱 AI 回答**:聚焦季节场景本身,简洁点明"季节不同,虽都描述穿衣服数量,但指向行为不同",回答更直接聚焦问题核心区别。

对比结论: 千问 AI 擅长挖掘语义背后的生活逻辑, 解释更具延展性; 智谱 AI 侧重场景差异, 回答更简洁。

#### (二) 语义理解类: 单身原因语句差异

**问题**:请说出以下两句话区别在哪里?单身狗产生的原因有两个,一是谁都看不上,二是谁都看不上

**千问 AI 回答**:从语义逻辑拆解"谁都看不上"的主动(自身看不上他人)、被动(他人看不上自身)层面差异,清晰区分两句话的表意侧重(如"第一句强调个人主观,第二句侧重社会客观")。

智谱 AI 回答: 围绕指代对象和行为主动性,分析"谁"的指代及主动/被动关系,梳理出"第一句'谁'主动,第二句'谁'被动"的区别,逻辑清晰但相对聚焦语句结构。对比结论: 千问 AI 更擅长关联生活场景解释语义,智谱 AI 更侧重语句结构和指代关系分析。

#### (三)逻辑推理类:多层认知嵌套问题

问题: 他知道我知道你知道他不知道吗? 这句话里, 到底谁不知道呢?

千问 AI 回答: 第一次完全崩溃: 首先生成 200+字无关爱情小说片段(含"在人群中寻找身影"等无关描写)随后陷入循环输出: "他知道他知道..."直至触发报错(CTraceback)根本未触及逻辑问题本质。第二次尝试拆解多层认知嵌套逻辑,指出因信息缺失(如"他知道'指向不明确")无法直接结论,需补充信息(如明确"他知道"的具体内容),体现对复杂逻辑的梳理和边界说明。

智谱 Al 回答:将问题归纳为"知道你知道我知道你知道"悖论,强调因陈述存在导致无法确定"谁不知道",形成逻辑闭环,侧重理论化解释。

对比结论: 千问 AI 注重逻辑拆解和实际信息补充需求, 智谱 AI 擅长关联理论概念(如悖论)解释问题。

#### (四) 中文特有的语言现象: 人名嵌套语义

问题:明明明明白白白喜欢他,可她就是不说。这句话里,明明和白白谁喜欢谁? 千问 AI 回答:通过语句断句和语义理解(如"明明明/明白白白喜欢他"),清晰

推导"白白喜欢明明"。回答直接且贴合中文断句逻辑。

智谱 AI 回答: 因语句断句理解差异(如 "明明明明明白白白喜欢他"), 出现 "明明喜欢白白"的误判, 反映对中文嵌套人名、断句的处理能力较弱。

对比结论: 千问 AI 对中文特有的嵌套语义、断句场景处理更准确, 智谱 AI 易因断句理解偏差导致错误。

#### (五) 中文特有的语言现象: "意思" 多义分析

问题: 领导与小明对话中"意思"的含义分析(领导: 你这是什么意思? 小明: 没什么意思。意思意思。领导: 你这就不够意思了。小明: 小意思, 小意思。领导: 你这人真有意思。小明: 其实也没有别的意思。领导: 那我就不好意思了。小明: 是我不好意思)

**千问 AI 回答**:逐句解析 "意思" 在不同语境的含义(如 "询问意图、轻描淡写态度、表达歉意"等).结合对话场景梳理语义流变,解释贴近日常交流逻辑。

智谱 AI 回答:将 "意思意思"等典型用法单独提炼,解释为 "稍微意思一下、送礼含义"等,但对整体对话中"意思"的连贯语义梳理较弱,存在重复解释(如多次"意思意思"的不同解读未有效关联场景)。

对比结论: 千问 AI 更擅长结合完整语境连贯解析多义词, 智谱 AI 对典型用法的单独解释较强, 但整体语境关联不足。

#### 4.2 测试性能评价

综上, 千问 AI 在生活化语义理解、中文复杂场景处理中表现更优; 智谱 AI 在理论化逻辑解释、简洁语义分析中更具特点。实际应用需根据场景需求选择: 若侧重生活化对话、中文细节处理, 优先选千问 AI; 若需理论化逻辑归纳、简洁语义分析, 可尝试智谱 AI。

#### 5. 项目公开可访问链接

https://github.com/dingzhenyao/Al-parallel-comparison