

⚠ 以下接口均为内部使用，请勿外传！

1 论文id查询

GET <http://zhitulist.com/zhitu-data-service/search/paper/{cid}>

接口说明

根据论文id获取论文详细信息。

参数

- cid :论文id（路径参数）

示例

<http://zhitulist.com/zhitu-data-service/search/paper/1438faed5fa24ce3a7d103e6db16182a>

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": "1438faed5fa24ce3a7d103e6db16182a",
    "type": "paper",
    "title": "面向自然语言处理的预训练技术研究综述",
    "titleLowercase": "面向自然语言处理的预训练技术研究综述",
    "abst": "近年来,随着深度学习的快速发展,面向自然语言处理领域的预训练技术获得了长足的进步。早期的自然语言处理领域长期使用word2vec等词向量方法对文本进行编码,这些词向量方法也可看作静态的预训练技术。然而,这种上下文无关的文本表示给其后的自然语言处理任务带来的提升非常有限,并且无法解决一词多义问题。ELMo提出了一种上下文相关的文本表示方法,可有效处理多义词问题。其后,GPT和BERT等预训练语言模型相继被提出,其中BERT模型在多个典型下游任务上有了显著的效果提升,极大地推动了自然语言处理领域的技术发展,自此便进入了动态预训练技术的时代。此后,基于BERT的改进模型、XLNet等大量预训练语言模型不断涌现,预训练技术已成为自然语言处理领域不可或缺的主流技术。文中首先概述预训练技术及其发展历史,并详细介绍自然语言处理领域的经典预训练技术,包括早期的静态预训练技术和经典的动态预训练技术;然后简要梳理一系列新式的有启发意义的预训练技术,包括基于BERT的改进模型和XLNet;在此基础上,分析目前预训练技术研究所面临的问题;最后对预训练技术的未来发展趋势进行展望。",
    "abstLowercase": "近年来,随着深度学习的快速发展,面向自然语言处理领域的预训练技术获得了长足的进步。早期的自然语言处理领域长期使用word2vec等词向量方法对文本进行编码,这些词向量方法也可看作静态的预训练技术。然而,这种上下文无关的文本表示给其后的自然语言处理任务带来的提升非常有限,并且无法解决一词多义问题。ELMo提出了一种上下文相关的文本表示方法,可有效处理多义词问题。其后,gpt和bert等预训练语言模型相继被提出,其中bert模型在多个典型下游任务上有了显著的效果提升,极大地推动了自然语言处理领域的技术发展,自此便进入了动态预训练技术的时代。此后,基于bert的改进模型、xlnet等大量预训练语言模型不断涌现,预训练技术已成为自然语言处理领域不可或缺的主流技术。文中首先概述预训练技术及其发展历史,并详细介绍自然语言处理领域的经典预训练技术,包括早期的静态预训练技术和经典的动态预训练技术;然后简要梳理一系列新式的有启发意义的预训练技术,包括基于bert的改进模型和xlnet;在此基础上,分析目前预训练技术研究所面临的问题;最后对预训练技术的未来发展趋势进行展望。",
    "venue": "计算机科学",
    "issue": "03",
    "year": 2020,
    "lang": "zh",
    "date": "2020-01-01",
    "citationNum": 0,
    "docType": "journal",
    "issn": "1002-137X",
    "doi": null,
    "publisher": null,
    "keywords": ["自然语言处理", "预训练", "词向量", "语言模型"],
    "fields": ["Computer Science", "Natural language processing", "Speech recognition", "Natural language", "Parsing", "Speech corpus", "Language production", "Constructed language"],
    "authors": [
      {
        "name": "范宇",
        "org": "北京航空航天大学",
        "orgName": null
      },
      {
        "name": "李舟军",
        "org": "北京航空航天大学",
        "orgName": null
      },
      {
        "name": "吴贤杰",
        "org": "北京航空航天大学",
        "orgName": null
      }
    ]
  }
}
```

2 论文关键词查询

GET <http://zhitulist.com/zhitu-data-service/search/paper/like>

接口说明

根据关键词获取最相关的论文（分页获取）。

参数

- content : 关键词内容
- pageNo : 分页序号
- pageSize : 单页数量

示例

<http://zhitulist.com/zhitu-data-service/search/paper/like?content=nlp&pageNo=0&pageSize=5>

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": "0c361ee491c845c39bf50001855ac17c",
    "type": "paper",
    "title": "Improving the Reliability of Deep Neural Networks in NLP: A Review",
    "titleLowercase": "improving the reliability of deep neural networks in nlp: a review",
    "abst": "Deep learning models have achieved great success in solving a variety of natural language processing (NLP) problems. An ever-growing body of research, however, illustrates the vulnerability of deep neural networks (DNNs) to adversarial examples - inputs modified by introducing small perturbations to deliberately fool a target model into outputting incorrect results. The vulnerability to adversarial examples has become one of the main hurdles precluding neural network deployment into safety-critical environments. This paper discusses the contemporary usage of adversarial examples to foil DNNs and presents a comprehensive review of their use to improve the robustness of DNNs in NLP applications. In this paper, we summarize recent approaches for generating adversarial texts and propose a taxonomy to categorize them. We further review various types of defensive strategies against adversarial examples, explore their main challenges, and highlight some future research directions. (C) 2019 Elsevier B.V. All rights reserved.",
    "abstLowercase": "deep learning models have achieved great success in solving a variety of natural language processing (nlp) problems. an ever-growing body of research, however, illustrates the vulnerability of deep neural networks (dnnns) to adversarial examples - inputs modified by introducing small perturbations to deliberately fool a target model into outputting incorrect results. the vulnerability to adversarial examples has become one of the main hurdles precluding neural network deployment into safety-critical environments. this paper discusses the contemporary usage of adversarial examples to foil dnnns and presents a comprehensive review of their use to improve the robustness of dnnns in nlp applications. in this paper, we summarize recent approaches for generating adversarial texts and propose a taxonomy to categorize them. we further review various types of defensive strategies against adversarial examples, explore their main challenges, and highlight some future research directions. (c) 2019 elsevier b.v. all rights reserved.",
    "venue": "KNOWLEDGE-BASED SYSTEMS",
    "issue": "",
    "year": 2020,
    "lang": "en",
    "date": "2020-03-05",
    "citationNum": 0,
    "docType": "journal",
    "issn": "0950-7051",
    "doi": "10.1016/j.knosys.2019.105210",
    "publisher": null,
    "keywords": ["Adversarial examples", "Adversarial texts", "Natural language processing"],
    "fields": ["Computer Science", "Artificial intelligence", "Machine learning", "Natural language processing", "Speech recognition", "Deep linguistic processing", "Natural language", "Knowledge representation and reasoning", "Word-sense disambiguation", "Language production"],
    "authors": [
      {
        "name": "Alshemali, Basemah",
        "org": "Taibah University|University of Colorado System",
        "orgName": null,
        {
          "name": "Kalita, Jugal",
          "org": "University of Colorado System",
          "orgName": null
        }
      ]
    },
    {
      "id": "50ff3855b90f4958830ff69cc062853e",
      "type": "paper",
      "title": "Optimality-based domain reduction for inequality-constrained NLP and MINLP"
    }
  }
}
```

3 专利id查询

GET <http://zhitulist.com/zhitu-data-service/search/patent>

接口说明

根据专利id获取专利详细信息。

参数

- `id` : 专利id

示例

<http://zhitulist.com/zhitu-data-service/search/patent?id=47352406208>

```
{
  "code": 200,
  "message": "成功",
  "data": {
    "id": "47352406208",
    "type": "patent",
    "title": "一种基于自然语言处理模块的智能扫地机器人",
    "titleLowercase": "一种基于自然语言处理模块的智能扫地机器人",
    "year": 2021,
    "date": "2021-02-26T00:00:00.000+0000",
    "authors": [
      {
        "scholarName": "邓大权",
        "orgName": null,
        {
          "scholarName": "王欣明",
          "orgName": null,
          {
            "scholarName": "李双印",
            "orgName": null,
            {
              "scholarName": "赵淦森",
              "orgName": null,
              {
                "scholarName": "罗浩宇",
                "orgName": null
              }
            }
          }
        }
      ]
    },
    "scholars": [
      {
        "scholarId": 41681989680,
        "scholarName": "罗浩宇",
        "orgName": "华南师范大学",
        "orgId": "14307471568",
        {
          "scholarId": 14494011440,
          "scholarName": "赵淦森",
          "orgName": "华南师范大学",
          "orgId": "14307471568",
          {
            "scholarId": 3763187808,
            "scholarName": "王欣明",
            "orgName": "华南师范大学",
            "orgId": "14307471568",
            {
              "scholarId": 102258876536,
              "scholarName": "李双印",
              "orgName": "华南师范大学",
              "orgId": "14307471568"
            }
          }
        }
      ]
    },
    "inventorName": "邓大权;王欣明;李双印;赵淦森;罗浩宇",
    "applicationDate": "2020-03-30T00:00:00.000+0000",
    "publicationDate": "2021-02-26 08:00:00",
    "applicantName": "华南师范大学",
    "applicantAddress": null,
    "applicationAreaCode": "中国",
    "applicationNum": null,
    "classCode": null,
    "legalStatus": "有效",
    "summary": "本实用新型公开了一种基于自然语言处理模块的智能扫地机器人,包括机体和集灰结构,所述机体的下端两侧设置有集灰盘,且集灰盘的中部设置有吸灰机构,所述机体的前端内部滑动连接有集灰结构,且机体的下端中部设置有传动结构,所述机体的上端中部设置有语音播放端口,且语音播放端口的内部设置有NLP系统。该基于自然语言处理模块的智能扫地机器人设置有机体,机体与集灰结构之间为可拆卸结构,整个集灰结构两侧设置有滑块,滑入至机体内部,与机体之间紧密贴合,通过该结构便于使用者定时对机体内部的灰尘进行倾倒,方便使用者使用者,并且整个机体与集灰结构相互拼接,呈圆形状分布,给予机体较高的美观度。",
    "pageCnt": null,
    "patentType": "实用新型",
    "pubOrgCode": null,
    "publicationNum": null,
    "searchCode": null,
    "signory": null,
    "agencyPersonName": null,
    "agencyOrgName": null,
    "priorityDate": null,
    "className": null
  }
}
```

4 专利关键词查询

GET <http://zhitulist.com/zhitu-data-service/search/patent/like>

接口说明

根据关键词获取最相关专利（分页获取）。

参数

- `content` : 关键词内容
- `pageNo` : 分页序号
- `pageSize` : 单页数量

示例

<http://zhitulist.com/zhitu-data-service/search/patent/like?content=nlp&pageNo=0&pageSize=5>

```
{
  "code": 200,
  "message": "success",
  "data": [
    {
      "id": "45337641200",
      "type": "patent",
      "title": "一种基于大数据调整NLP模型容量的方法",
      "titleLowercase": "method for adjusting nlp model capacity based on big data",
      "year": 2021,
      "date": "2021-02-12T00:00:00.000+0000",
      "authors": [
        {
          "scholarName": "王磊",
          "orgName": null
        },
        {
          "scholarName": "陈继扬",
          "orgName": null
        }
      ],
      "scholars": [
        {
          "scholarId": 43199803440,
          "scholarName": "陈继扬",
          "orgName": "浙江百应科技有限公司",
          "orgId": "24282931272",
          "scholarId": 42115530832,
          "scholarName": "王磊",
          "orgName": "浙江百应科技有限公司",
          "orgId": "24282931272"
        },
        {
          "inventorName": "王磊;陈继扬",
          "applicationDate": "2020-11-16T00:00:00.000+0000",
          "publicationDate": "2021-02-12 08:00:00",
          "applicantName": "浙江百应科技有限公司",
          "applicantAddress": null,
          "applicationAreaCode": "中国",
          "applicationNum": null,
          "classCode": null,
          "legalStatus": "审中",
          "summary": "本发明公开了一种基于大数据调整NLP模型容量的方法，包括：获取NLP模型的模型服务历史QPS数据构建NLP容量预测模型，其中，NLP容量预测模型通过NLP模型的模型服务历史QPS数据、模型服务历史QPS数据对应的时间点建立拟合曲线，采用最小二乘法拟合拟合曲线获得；获取NLP模型的模型服务当前时刻的最大可服务的QPS数作为第一QPS阈值，其中，第一QPS阈值通过NLP模型的最大可承受请求数、NLP模型处理每个请求的时间获得；根据NLP容量预测模型计算当前时刻NLP模型的模型服务QPS作为第一QPS；判断第一QPS是否大于第一QPS阈值，如果是，扩充NLP模型的模型服务容量。",
          "pageCnt": null,
          "patentType": "发明专利",
          "pubOrgCode": null,
          "publicationNum": null,
          "searchCode": null,
          "signory": null,
          "agencyPersonName": null,
          "agencyOrgName": null,
          "priorityDate": null,
          "className": null,
          "id": "47282065600",
          "type": "patent",
          "title": "一种基于NLP和图像识别的二手图书版次识别装置",
          "titleLowercase": "second-hand book version"
        }
      ]
    }
  ]
}
```

5 专家id查询

GET <http://zhitulist.com/zhitu-data-service/search/scholar>

接口说明

根据专家id获取专家详细信息。

补充：可以从论文/专利详情中的 `scho1ars` 字段获取。

参数

- `id`：专家id

示例

<http://zhitulist.com/zhitu-data-service/search/scholar?id=41681989680>

```
{
  "code": 200,
  "message": "success",
  "data": {
    "scholarId": 41681989680,
    "scholarName": "罗浩宇",
    "org": "华南师范大学",
    "title": "教授",
    "url": "http://www.kejso.com/scholar/41681989680",
    "fieldSecond": ["数据库", "软件工程", "算法"],
    "fieldThird": ["Web服务", "算法", "调度（计算机）", "服务器", "分散式算法"],
    "awards": null,
    "papers": {
      "total": 10,
      "content": [
        {
          "title": "Adaptive cross-contextual word embedding for word polysemy with unsupervised topic modeling",
          "cites": 0,
          "venue": null,
          "authors": ["Shuangyin Li", "Rong Pan", "Haoyu Luo", "Xiao Liu", "Gansen Zhao"],
          "isEI": false,
          "isSCI": false,
          "url": "http://www.kejso.com/paper/44510109776",
          "pyear": 2021,
          "title": "A novel chromosome cluster types identification method using ResNeXt WSL model.",
          "cites": 1,
          "venue": null,
          "authors": ["Chengchuang Lin", "Gansen Zhao", "Aihua Yin", "Zhirong Yang", "Zhirong Yang", "Li Guo", "Hanbiao Chen", "Lei Zhao", "Shuangyin Li", "Haoyu Luo", "Zhaohui Ma", "Zhaohui Ma"],
          "isEI": true,
          "isSCI": true,
          "url": "http://www.kejso.com/paper/105283342456",
          "pyear": 2021,
          "title": "机器视觉应用中的图像数据增长综述",
          "cites": 0,
          "venue": null,
          "authors": ["林成创", "单纯", "赵淦森", "杨志荣", "彭璟", "陈少洁", "黄润桦", "李壮伟", "易序晟", "杜嘉华", "李双印", "罗浩宇", "樊小毛", "陈冰川"],
          "isEI": false,
          "isSCI": false,
          "url": "http://www.kejso.com/paper/106525810808",
          "pyear": 2021,
          "patents": {
            "total": 5,
            "content": [
              {
                "title": "一种基于自然语言处理模块的智能扫地机器人",
                "authors": ["邓大权", "王欣明", "李双印", "赵淦森", "罗浩宇"],
                "url": "http://www.kejso.com/patent/47352406208",
                "pyear": 2021,
                "title": "一种基于智能座舱人机交互系统的通讯设备",
                "authors": ["李双印", "罗浩宇"],
                "url": "http://www.kejso.com/patent/103070490744",
                "pyear": 2020,
                "title": "一种基于区块链网络进行信息传输和分析的智能机顶盒",
                "authors": ["邓大权", "王欣明", "李双印", "赵淦森", "罗浩宇"],
                "url": "http://www.kejso.com/patent/45881688272",
                "pyear": 2020,
                "projects": {
                  "total": 1,
                  "content": [
                    {
                      "title": "边缘计算环境中基于移动终端协同的工作流卸载方法研究",
                      "startYear": 2021,
                      "endYear": null,
                      "typeFirst": "青年科学基金项目",
                      "typeSecond": null,
                      "typeThird": null,
                      "url": "http://www.kejso.com/project/102277025912"
                    }
                  ]
                },
                "info": "罗浩宇\nLuoHaoyu\n华南师范大学计算机学院\nwww.scholat.com/haoyuluo\n简介\nABOUT\n动态NEWS\n学术ACADEMIC\n圈子LINKS\n个人简介\n联系方式\n个人简介\n罗浩宇，江西萍乡人，2018年6月获武汉大学计算机软件与理论专业博士学位。现为CCF服务计算专委会委员，研究方向为服务计算、边缘计算、工作流系统。近年来在SPE、ICWS、ICSOC等国际期刊和会议上发表论文10余篇。2018年9月份加入华南师范大学计算机学院从事教学科研工作。2014-09-2018.06武汉大学计算机软件与理论博士2011.09-2014.06西北师范大学计算机软件与理论硕士2007.09-2011.06东华理工大学软件工程专业本科2018.09-华南师范大学计算机学院副研究员2017.12-2018.3澳大利亚迪肯大学信息技术学院研究助理（合作导师：刘晓博士、JohnGrundy教授）\n\nCCF、IEEE会员，担任FGCS、IEEEAccess、CloudCom、CCBPM等多个国际期刊和会议的审稿人。联系方式\n\n想与我进行学术交流？\n\n立即通过学者网的\n\n和\n\n工具与我联系！\n\nEmail:\n\n",
                "gender": null,
                "department": "计算机学院",
                "birthday": null,
                "position": null,
                "education": null,
                "major": null,
                "phone": null,
                "email": null
              }
            ]
          }
        }
      ]
    }
  ]
}
```