

⚠ 以下接口均为内部使用，请勿外传！

1 论文id查询（修改）

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

接口说明

根据论文id获取论文详细信息。

参数

- `id`: 论文id

示例

<http://zhitulist.com/zhitu-data-service/search/paper?id=101970854008>

```
{
  "code": 200,
  "message": "success",
  "data": {
    "id": "101970854008",
    "type": "paper",
    "abst": "深度学习模型被证明存在脆弱性并容易遭到对抗样本的攻击,但目前对于对抗样本的研究主要集中在计算机视觉领域而忽略了自然语言处理模型的安全问题。针对自然语言处理领域同样面临对抗样本的风险,在阐明对抗样本相关概念的基础上,文中首先对基于深度学习的自然语言处理模型的复杂结构、难以探知的训练过程和朴素的基本原理等脆弱性成因进行分析,进一步阐述了文本对抗样本的特点、分类和评价指标,并对该领域对抗技术涉及到的典型任务和数据集进行了阐述;然后按照扰动级别对主流的字、词、句和多级扰动组合的文本对抗样本生成技术进行了梳理,并对相关防御方法进行了归纳总结;最后对目前自然语言处理对抗样本领域攻防双方存在的痛点问题进行了进一步的讨论和展望。",
    "year": 2021,
    "title": "面向自然语言处理的深度学习对抗样本综述",
    "titleLowercase": "面向自然语言处理的深度学习对抗样本综述",
    "date": "2020-12-31T16:00:00.000+0000",
    "ncitation": 0,
    "authors": [
      {
        "scholarName": "全鑫",
        "orgName": "中国人民公安大学"
      },
      {
        "scholarName": "王斌君",
        "orgName": "中国人民公安大学"
      },
      {
        "scholarName": "王润正",
        "orgName": "中国人民公安大学"
      },
      {
        "scholarName": "潘孝勤",
        "orgName": "中国人民公安大学"
      }
    ],
    "fields": [
      {
        "fieldId": 884760,
        "fieldName": "健壮性 (计算机科学)",
        "level": 3,
        "fieldId": 1274104,
        "fieldName": "深层语言处理",
        "level": 3,
        "fieldId": 41463824,
        "fieldName": "机器学习",
        "level": 2,
        "fieldId": 41517072,
        "fieldName": "人工智能",
        "level": 2,
        "fieldId": 43638800,
        "fieldName": "自然语言",
        "level": 3,
        "fieldId": 18368282744,
        "fieldName": "音乐信息检索",
        "level": 3,
        "fieldId": 18677805264,
        "fieldName": "自然语言处理",
        "level": 2,
        "fieldId": 18718757104,
        "fieldName": "信息科学",
        "level": 1,
        "fieldId": 18718900464,
        "fieldName": "语音识别",
        "level": 2,
        "fieldId": 18741575920,
        "fieldName": "人工语言",
        "level": 3
      },
      {
        "scholarId": 14332895456,
        "scholarName": "王斌君",
        "orgName": "中国人民公安大学",
        "orgId": "14302138488"
      }
    ],
    "docType": "journal",
    "doi": null,
    "lang": "zh",
    "venue": "计算机科学",
    "publisher": null,
    "issue": "01",
    "volume": null,
    "pageStart": "258",
    "pageEnd": "267",
    "issn": "1002-137X",
    "isbn": null,
    "classCode": "TP391.1;TP18",
    "impactFactor": 0.0,
    "className": null,
    "maId": null,
    "urls": null,
    "beenEi": false,
    "keywords": ["自然语言处理", "深度学习", "人工智能安全", "对抗样本", "鲁棒性", ""]
  }
}
```

备注

该接口经过修改后，查询方式不再使用路径参数，而是采用请求参数id。另外，返回字段中新增 scholars，为作者中能在学者数据库里匹配命中的学者（含有id）。

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的灰尘进行倾倒，方便使用者使用，并且整个机体与集灰结构相互拼接，呈圆形分布，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本识别装置",
          "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 `scholars` 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广综述",
          "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",
                  "LuoHaoyu",
                  "华南师范大学计算机学院",
                  "www.scholat.com/haoyuluo",
                  "简介",
                  "ABOUT",
                  "动态NEWS",
                  "学术ACADEMIC",
                  "圈子LINKS",
                  "个人简介",
                  "联系方式",
                  "个人简介",
                  "罗浩宇",
                  "江西萍乡人, 2018年6月获武汉大学计算机科学与技术专业博士学位。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",
                  "武汉大学计算机科学与技术博士",
                  "2011.09-2014.06",
                  "西北师范大学计算机科学与技术理论硕士",
                  "2007.09-2011.06",
                  "东华理工大学软件工程本科",
                  "2018.09-2018.12",
                  "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)",
                  "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",
                  "想与我进行学术交流?",
                  "立即通过学者网的",
                  "工具与我联系!",
                  "Email:",
                  "gender": null,
                  "department": "计算机学院",
                  "birthday": null,
                  "position": null,
                  "education": null,
                  "major": null,
                  "phone": null,
                  "email": null
                }
              }
            ]
          }
        }
      ]
    }
  ]
}
```