

## 张昊迪

深圳大学计算机与软件学院 助理教授 硕导  
电话: (86)13902441851  
E-MAIL: [hdzhang@szu.edu.cn](mailto:hdzhang@szu.edu.cn)  
学术主页: <https://hdzhangust.github.io/>



## 教育背景

---

2009.09 – 2016.02 香港科技大学计算机系博士（导师：林方真教授）  
2005.09 – 2009.07 中国科技大学计算机系学士

## 研究兴趣

---

知识驱动与数据驱动融合的人工智能基础理论与应用：知识表示与推理、深度强化学习、自然语言处理、数据融合、群智理论与算法等

## 工作经历

---

2017.11 至今, 深圳大学计算机与软件学院, 助理教授  
2020.02 – 2020.06, 香港科技大学计算机科学与工程系, 客座讲师（开设研究生课《Natural Language Processing》）  
2016.03 – 2017.10, 香港科技大学工业工程与决策系, 博士后研究员

## 科研奖项

---

- 2021.01 CCF-A 类会议 IJCAI MAIQ 竞赛 Verbal 赛道冠军
- 2021.01 CCF-A 类会议 IJCAI MAIQ 竞赛 Diagram 赛道冠军
- 2018.06 腾讯犀牛鸟青年教师科研基金项目奖
- 2018.04 深圳市“孔雀计划”海外高层次人才
- 2022.08 指导学生获奖：第 15 届中国大学生计算机设计大赛全国二等奖, 基于领域知识和多模态数据的可解释肺炎诊断系统（该届比赛人工智能实践赛道深圳大学所获最高奖项）
- 2022.05 指导学生获奖：美国数学建模大赛 Finalist Mention 冠名奖（全球前 2%, 该届比赛深圳大学所获最高奖项）
- 2022.06 指导学生获奖：广东省大学生计算机设计大赛决赛二等奖, 基于领域知识和多模态数据的可解释肺炎诊断系统
- 2021.09 指导学生获奖：第四届绽放杯 5G 应用大赛高校组三等奖, 基于知识引导和深度强化学习的服务对话机器人模型

## 教学奖项

---

- 2022.05 第二届全国高校教师教学创新大赛深圳大学二等奖（全院唯一获奖助理教授）
- 2021.04 深圳大学优秀本科课程奖（全院唯一获奖助理教授）
- 2019.12 深圳大学计算机与软件学院最佳新人奖（每年一人）
- 2020.09 深圳大学年度考核优秀奖
- 2021.05 深圳大学第十届青年教师讲课竞赛学院二等奖
- 2019.06 深圳大学第九届青年教师讲课竞赛学院二等奖
- 2021.12 腾讯云人工智能特色班先进班集体

## 科研项目

---

- 国家自然科学基金青年项目，非单调推理在动作语言系统刻画中的理论与应用研究，2018.01 – 2021.12，主持
- 广东省自然科学基金面上项目，知识表示与推理在深度强化学习中的嵌入与整合，2022.01 – 2024.12，主持
- 深圳市海外高层次人才科研项目，基于推理的人工智能在动作语言系统中的应用，2020.01 – 2022.12，主持
- 国家自然科学基金联合重点项目，基于多维度深层次感知信息的社群情境计算，2020.01 - 2024.12，参与
- 雨燕基金（金融科技）项目，面向数字人经济大脑的知识表示与整合，2022.01 – 2022.12，主持
- 腾讯犀牛鸟青年教师科研项目，基于逻辑的人工智能在游戏 AI 中的应用，2019.01 - 2020.12，主持
- 深圳市高水平大学建设项目，知识规则干预的深度强化学习，2020.01 - 2022.12，主持
- 深圳大学青年教师启动项目，知识与推理干预的深度强化学习，2018.01 - 2020.12，主持
- 广东省重点研发项目，粤港澳大湾区突发急性传染病监测预警与紧急医学救援关键技术及装备的研发与示范，2020.01 - 2022.12，参与
- 广东省教育厅重点领域专项项目，基于振动信号的非接触式智能感知理论与应用技术研究，2022.01 - 2024.12，参与

## 发表论文

---

- [1] **Haodi Zhang**, Wenxi Huang, Zhenhan Su, Junyang Chen, Di Jiang, Lixin Fan, Chen Zhang, Defu Lian and Kaishun Wu. Hierarchical Crowdsourcing for Data Labeling with Heterogeneous Crowd. *Proceedings of IEEE International Conference on Data Engineering*, accepted (**ICDE 2023, CCF-A 类会议**)
- [2] **Haodi Zhang**, Zhichao Zeng, Keting Lu, Kaishun Wu, Shiqi Zhang. Efficient

Dialog Policy Learning by Reasoning with Contextual Knowledge. *Proceedings of the Thirty-Sixth AAAI Conference on Artificial Intelligence*, 2022:11667-11675 (**AAAI 2022**, CCF-A 类会议)

- [3] Chen Zhang#, **Haodi Zhang**\*, Weiteng Xie, Nan Liu, Qifan Li, Kaishun Wu, Di Jiang, Peiguang Lin and Lei Chen, Cleaning Uncertain Data with Crowdsourcing - a General Model with Diverse Accuracy Rates. *IEEE Transactions on Knowledge and Data Engineering* 34(8): 3629-3642, 2022 (**TKDE**, CCF-A 类期刊)
- [4] **Haodi Zhang**, Chenyu Xu, Jiahong Li, Peirou Liang, Xiangyu Zeng, Hao Ren, Weibin Cheng, and Kaishun Wu, Explainable Pulmonary Disease Diagnosis with Prompt-Based Knowledge Extraction. *Proceedings of the IEEE International Conference on Bioinformatics and Biomedicine*, accepted, 2022 (**BIBM 2022**, CCF-B 类会议)
- [5] Junyang Chen, Mengzhu Wang, **Haodi Zhang**, Zhiguo Gong, Zhidan Liu, Kaishun Wu, Victor Leung, IRLM: Inductive Representation Learning Model for Personalized POI Recommendation. *IEEE Transactions on Computational Social Systems* 2022, Early Access (**TCSS**)
- [6] 张昊迪, 陈振浩, 陈俊扬, 周熠, 连德富, 伍楷舜, 林方真, 显式知识推理和深度强化学习结合的动态决策, *软件学报*, 006593:10.13328, 2022 (**JOS**, CCF-A 类中文期刊)
- [7] **Haodi Zhang**, Chenyu Xu, Peirou Liang, Ke Duan, Hao Ren, Weibin Cheng, and Kaishun Wu. MMLN: Leveraging Domain Knowledge for Multimodal Diagnosis. *Proceedings of the Eighteenth International Symposium on Bioinformatics Research and Applications*, accepted (**ISBRA 2022**, CCF-C 类会议)
- [8] Sheng Luo, **Haodi Zhang**, Qifan Li and Kaishun Wu. Knowledge-Assisted DRL for Energy Harvesting Based Multi-Access Wireless Communications, *Proceedings of IEEE International Conferences on High Performance Computing and Communications*, 2022:869-876 (**HPCC 2022**, CCF-B 类会议)
- [9] **Haodi Zhang**, Zhao Chen, Jinyin Nie, Di Jiang, Lixin Fan and Kaishun Wu. KnowledgeEnhanced Learning for KG Embedding. *Proceedings of the Twenty-Eighth IEEE International Conference on Parallel and Distributed Systems*, accepted (**ICPADS 2022**, CCF-C 类会议)
- [10] **Haodi Zhang**, Wenxi Huang, Chenyu Xu, Zhengbang Yang, Hongxin Zhou, Fengtian Qi, Kaishun Wu and Chen Zhang. Improving Confidence of Uncertain Knowledge Graphs by Crowdsourcing with Limited Budget. *Proceedings of the Twenty-Eighth IEEE International Conference on Parallel and Distributed Systems*, accepted (**ICPADS 2022**, CCF-C 类会议)
- [11] Chen Zhang#, **Haodi Zhang**\*, Qifan Li, Kaishun Wu, Di Jiang, Yuanfeng Song, Peiguang Lin, and Lei Chen. Burstiness-Aware Web Search Analysis on Different Levels of Evidences. *IEEE Transactions on Knowledge and Data Engineering*, Early Access, 2021. (**TKDE**, CCF-A 类期刊)
- [12] Chen Zhang#, **Haodi Zhang**\*, Weiteng Xie, Nan Liu, Kaishun Wu and Lei Chen. Where To: Crowd-Aided Path Selection by Selective Bayesian Network. *IEEE Transactions on Knowledge and Data Engineering*, Early Access, 2021. (**TKDE**, CCF-A 类期刊)

- [13] Zhidan Liu, Junhong Zheng, Zengyang Gong, **Haodi Zhang** and Kaishun Wu. Cleaning Uncertain Data with Crowdsourcing - a General Model with Diverse Accuracy Rates. *Proceedings of 26th International Conference of Database Systems for Advanced Applications*, 2021:491-508. (**DASFAA 2021**, CCF-B 类会议)
- [14] Hao Ren, Aslan B. Wong, Wanmin Lian, Weibin Cheng, Ying Zhang, Jianwei He, Qingfeng Liu, Jiasheng Yang, Chen Jason Zhang, Kaishun Wu, **Haodi Zhang\***. Interpretable Pneumonia Detection by Combining Deep Learning and Explainable Models with Multisource Data. *IEEE Access* 9:95872-95883, 2021. (**JCR Q1**)
- [15] Shan Wang\*, Zhao Chen, **Haodi Zhang\***, Macau's Vocabulary Growth in the Recent Ten Year (In Chinese). *Proceedings of the 20th Chinese National Conference on Computational Linguistics*, 2021:350-360 (**CCL 2021**)
- [16] Zihang Gao, Fangzhen Lin, Yi Zhou, Hao Zhang, Kaishun Wu, **Haodi Zhang\***, Embedding High-level Knowledge into DQNs to Learn Faster and More Safely. *Proceedings of the Thirty-Fourth AAAI Conference on Artificial Intelligence (short paper)* 2020:13608-13609. (**AAAI 2020**)
- [17] **Haodi Zhang**, Di Zhan, Chen Jason Zhang, Kaishun Wu, Ye Liu, Sheng Luo. Deep Reinforcement Learning-Based Access Control for Buffer-Aided Relaying Systems With Energy Harvesting. *IEEE Access* 8:145006-145017, 2020. (**JCR Q1**)
- [18] Yusen Liu, Fangyuan He, **Haodi Zhang**, Guozheng Rao, Zhiyong Feng, Yi Zhou: How Well Do Machines Perform on IQ tests: a Comparison Study on a Large-Scale Dataset. *Proceeding of International Joint Conference on Artificial Intelligence*, 2019:6110-6116. (**IJCAI 2019**, CCF-A 类会议)
- [19] Fangyuan He, Yi Zhou, **Haodi Zhang**, Zhiyong Feng: Dual-enhanced Word Representations Based on Knowledge Base. *Proceedings of the ISWC 2018 Industry and Blue Sky Ideas Tracks of the 17th International Semantic Web Conference* 2018. (**ISWC 2018**, CCF-B 类会议)
- [20] **Haodi Zhang**, Fangzhen Lin: Characterizing causal action theories and their implementations in answer set programming. *Artificial Intelligence* 248: 1-8, 2017. (**AIJ**, CCF-A 类期刊)
- [21] **Haodi Zhang**, Yu Wang, Xiangtong Qi, Weiping Xu, Tao Peng, Shucheng Liu: An intent solver for enabling intent-based SDN, in *IEEE Conference on Computer Communications (short paper)* 2017: 968-969. (**INFOCOM 2017**)
- [22] **Haodi Zhang**, Fangzhen Lin: Mapping Action Language BC to Logic Programs: A Characterization by Postulates. *Proceeding of the AAAI Conference on Artificial Intelligence*, 2016:1116-1123. (**AAAI 2016**, CCF-A 类会议)
- [23] **Haodi Zhang**, Fangzhen Lin: Characterizing Causal Action Theories and Their Implementations in Answer Set Programming: Action Languages B, C, and Beyond. *Proceeding of International Joint Conference on Artificial Intelligence*, 2015:3285-3291. (**IJCAI 2015**, CCF-A 类会议)

## 专利

---

- 美国发明专利, **Haodi Zhang**, Xiangtong Qi, Tao Peng, Weiping Xu, Shucheng

Liu. Network Service Management Method, Apparatus, and System (11153200), 2020.08, 已授权

- 中国发明专利, 张昊迪, 任昊, 伍楷舜, 连万民, 一种辅助诊断方法及其应用, 2021.03, 实质审查
- 中国发明专利, 张昊迪, 伍楷舜, 陈振浩, 非单调推理在逻辑动作语言系统刻画中的知识表示方法, 2021.01, 实质审查
- 中国发明专利, 张昊迪, 伍楷舜, 陈振浩, 高子航, 李启凡, 一种基于深度强化学习的决策方法, 2020.10, 实质审查

## 学术活动

---

- 担任 EAI ICECI 2021 组委会主席
- 特邀报告 (Invited talks)
  - Knowledge Representation and Reasoning for Deep Learning in NLP, on *The 2nd Macau Symposium on Linguistics*, 2021 年 12 月 3 日, 澳门
  - Natural language processing: tasks, models and applications, on *The 2nd Interdisciplinary Frontier Forum*, 2021 年 11 月 24 日, 珠海
  - Leveraging Human Intelligence in Machine Learning for NLP, on *The 1st Macau Symposium on Linguistics*, 2020 年 12 月 4 日, 澳门
- 担任 Artificial Intelligence, Machine Learning, Data Intelligence 等国际期刊受邀审稿人
- 担任程序委员会成员/资深成员 (TPC Member/Senior TPC Member):
  - AAAI Conference on Artificial Intelligence (AAAI) 2023, 2022, 2021, 2020, 2019, 2018, 2015
  - International Joint Conference on Artificial Intelligence (IJCAI) 2022, 2021, 2020, 2019, 2018
  - International Conference on Learning Representations (ICLR) 2022, 2021
  - The Joint Conference of the 59th Annual Meeting of the Association for Computational Linguistics and the 11th International Joint Conference on Natural Language Processing (ACL-IJCNLP) 2021
  - The Conference on Neural Information Processing Systems (NeurIPS) 2022, 2021, 2020
  - The Conference on Empirical Methods in Natural Language Processing (EMNLP) 2021, 2020
  - International Conference on Principles of Knowledge Representation and Reasoning (KR) 2016, 2014

## 教学经历

---

2022 春	深圳大学	本科课程	编译原理	94.1/100
2022 春	深圳大学	研究生课程	组合数学	-

2021 秋	深圳大学	本科课程	离散数学	98.1/100 (Top 7.1%)
2020 秋	深圳大学	本科课程	离散数学	93.8/100
2020 秋	深圳大学	本科课程	自然语言处理	85.2/100
2020 春	香港科技大学	研究生课程	Natural Language Processing	-
2020 春	深圳大学	本科课程	编译原理	85.7/100
2019 秋	深圳大学	本科课程	离散数学	94.6/100
2019 春	深圳大学	本科课程	编译原理	100/100 (Top 0.7%)
2018 秋	深圳大学	本科课程	离散数学	93.6/100 (Top 9%)
2018 春	深圳大学	本科课程	编程语言	82.7/100