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个人简历

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"是什么神奇的技巧让我们拥有智慧？这个技巧就是没有技巧。智慧的力量源于个体浩瀚的多样性，而不是任何单一、完美的原则。"
——马文 · 明斯基（图灵奖得主，人工智能先驱），《心智社会》。

工作现状

06/2022- **博士后研究员**, 香港中文大学, 深圳, 中国, 工作导师：查宏远, 杜俊 (中国科学技术大学).

06/2022- **助理研究员**, 机器学习中心, 人工智能与机器人研究院, 深圳, 中国.

教育经历

2019–2022 **博士，计算机科学与技术**, 华东师范大学, 上海, 中国, 导师：周爱民，查宏远.

2016–2019 **硕士，软件工程**, 华东师范大学, 上海, 中国, 导师：查宏远.

2007–2010 **学士，计算机科学与技术**, 兰州大学, 兰州, 中国.

研究经历

2019&2022 **研究助理**, 香港中文大学（*9* 个月）, 深圳, 中国, 导师：查宏远, 王趵翔.

06/2020 **研究实习**, 腾讯人工智能实验室（*3* 个月）, 深圳, 中国.
工作导师：罗迪君。多智能体强化学习在精准农业上的应用。

12/2019 **研究实习**, 极智嘉科技股份有限公司（*6* 个月，远程）, 北京, 中国.
工作导师：谭文哲。多智能体强化学习在路径规划上的应用。

06/2018 **研究实习**, 格灵深瞳信息技术股份有限公司（*6* 个月）, 合肥, 中国.
工作导师：张明，学术导师：张德兵。强化学习在自动化标注上的应用。

荣誉奖项

2023 **优秀博士论文奖提名奖**, 上海市计算机学会.

2022 **上海市优秀研究生毕业生**, 上海市教育委员会.

2021 **AAMAS 2021 博士奖学金**, *AAMAS 2021* 组委会.

2016 **兰州大学优秀毕业生**, 兰州大学.

学术成果

期刊论文

[J4] **Flexible Fully-Decentralized Approximate Actor-Critic for Cooperative Multi-Agent Reinforcement Learning**.
Wenhao Li, Bo Jin, Xiangfeng Wang, Junchi Yan, Hongyuan Zha.
Journal of Machine Learning Research, (JMLR, CCF-A), 24.178: 1-75, 2023, 长文 (75 页).

[J3] **Structured Cooperative Reinforcement Learning with Time-varying Composite Action Space**.
Wenhao Li, Xiangfeng Wang, Bo Jin, Dijun Luo, Hongyuan Zha.
IEEE Transactions on Pattern Analysis and Machine Intelligence, (TPMAI, CCF-A), 44.11: 8618-8634, 2022. **影响因子：24.314**。

[J2] **Distributed and Parallel ADMM for Structured Nonconvex Optimization Problem**.
Xiangfeng Wang, Junchi Yan, Bo Jin, **Wenhao Li**.
IEEE Transactions on Cybernetics, (TCYB, SCI-Q1), 51.9: 4540-4552, 2019. **影响因子：19.118**。

[J1] **Learning Structured Communication for Multi-Agent Reinforcement Learning**.
Junjie Sheng, Xiangfeng Wang, Bo Jin, Junchi Yan, **Wenhao Li**, Tsung-Hui Chang, Jun Wang, Hongyuan Zha.
Journal of Autonomous Agents and Multiagent Systems, (JAAMAS, CCF-B), 36.2: 50, 2022.

会议论文

[C11] **Hierarchical Diffusion for Offline Decision Making**.
Wenhao Li, Xiangfeng Wang, Bo Jin, Hongyuan Zha.
International Conference on Machine Learning (**ICML, CCF-A**), 202:20035-20064, 2023.

[C10] **Dealing with Non-Stationarity in Multi-Agent Reinforcement Learning via Trust Region Decomposition**.
Wenhao Li, Xiangfeng Wang, Bo Jin, Junjie Sheng, Hongyuan Zha.
International Conference on Learning Representations (**ICLR, TH-CPL-A**), 2022.

[C9] **Information Design in Multi-Agent Reinforcement Learning**.
Yue Lin, **Wenhao Li**, Hongyuan Zha, Baoxiang Wang.
Conference on Neural Information Processing Systems (**NeurIPS, CCF-A**), 2023.

[C8] **Iteratively-Refined Interactive 3D Medical Image Segmentation with Multi-Agent Reinforcement Learning**.
Xuan Liao, **Wenhao Li**, Qisen Xu, Xiangfeng Wang, Bo Jin, Xiaoyun Zhang, Yanfeng Wang, Ya Zhang.
The IEEE / CVF Computer Vision and Pattern Recognition Conference (**CVPR, CCF-A**), 2020.

[C7] **VMAgent: Scheduling Simulator for Reinforcement Learning**.
Sheng, Junjie, Shengliang Cai, Haochuan Cui, **Wenhao Li**, Yun Hua, Bo Jin, Wenli Zhou et al.
International Joint Conference on Artificial Intelligence (**IJCAI, CCF-A**), 2022.

[C6] **HMRL: Hyper-Meta Learning for Sparse Reward Reinforcement Learning Problem**.
Yun Hua, Xiangfeng Wang, Bo Jin, **Wenhao Li**, Junchi Yan, Xiaofeng He, Hongyuan Zha.
International Conference on Knowledge Discovery and Data Mining (**KDD, CCF-A**), 2021.

[C5] **Diverse Policy Optimization for Structured Action Space**.
Wenhao Li, Baoxiang Wang, Shanchao Yang and Hongyuan Zha.
International Conference on Autonomous Agents and Multiagent Systems (**AAMAS, CCF-B**), Oral, 819–828, 2023.

[C4] **Model-Based RL for Auto-Bidding in Display Advertising**.
Shuang Chen, Qisen Xu, Liang Zhang, Yongbo Jin, **Wenhao Li** and Linjian Mo.
International Conference on Autonomous Agents and Multiagent Systems (**AAMAS, CCF-B**), **Corresponding author**, Oral, 1560–1568, 2023.

[C3] **Structured Diversification Emergence via Reinforced Organization Control and Hierachical Consensus Learning**.
Wenhao Li, Xiangfeng Wang, Bo Jin, Junjie Sheng, Yun Hua, Hongyuan Zha.
International Conference on Autonomous Agents and Multiagent Systems (**AAMAS, CCF-B**), Oral, 2021.

[C2] **Multi-Agent Path Finding with Prioritized Communication Learning**.
Wenhao Li*, Hongjun Chen*, Bo Jin, Wenzhe Tan, Hongyuan Zha and Xiangfeng Wang.
International Conference on Robotics and Automation (**ICRA, CCF-B**), 2022.

[C1] **Learning Optimal "Pigovian Tax" in Sequential Social Dilemmas**.
Yun Hua, Shang Gao, **Wenhao Li**, Bo Jin, Xiangfeng Wang and Hongyuan Zha.
International Conference on Autonomous Agents and Multiagent Systems (**AAMAS, CCF-B**), 2023.

基金项目

主持

2022 **第 72 批博士后面上基金（2022-2024）**，*2022M723039*, 面向高维图结构化动作空间的强化学习策略优化算法研究, 中国博士后科学基金委员会.

参与

2021 **科技创新 2030- "新一代人工智能" 重大项目（2021-2023）**，*SQ2020AAA010017*, 结构自适应自演化的高级机器学习方法研究, 科技部.

2020 **科技创新行动计划人工智能科技支持专项（2020-2022）**，*20511101100*, 面向多模态医学数据开放共享的数据治理解决方案, 上海市科学技术委员会.

学术活动

期刊/会议审稿人

2023 IEEE Transactions on Intelligent Vehicles (T-IV)

2023 IEEE Transactions on Emerging Topics in Computational Intelligence (T-ETCI)

2023 International Conference on Neural Information Processing Systems (NeurIPS), **杰出审稿人**

2021-2023 International Conference on Autonomous Agents and Multiagent Systems (AAMAS)

2022-2023 International Conference on Learning Representations (ICLR)

报告和演讲

受邀报告

08/2023 **Cooperative Multi-Agent Reinforcement Learning: Theories, Algorithms and Applications**, 中国科学技术大学 & 同济大学 & 上海财经大学.

06/2023 **Generative Models in Reinforcement Learning**, 复旦大学类脑智能科学与技术研究院, 中国上海.

01/2022 **Structured Diversification Emergence via Reinforced Organization Control and Hierachical Consensus Learning**, 分布式人工智能大会, *2021*, 中国上海.

会议演讲

07/2023 **Hierarchical Diffusion for Offline Decision Making**, *ICML*.

06/2023 **Diverse Policy Optimization for Structured Action Space**, *AAMAS*.

06/2023 **Model-Based Reinforcement Learning for Auto-Bidding in Display Advertising**, *AAMAS*.

05/2022 **Multi-Agent Path Finding with Prioritized Communication Learning**, *ICRA*.

05/2021 **Structured Diversification Emergence via Reinforced Organization Control and Hierachical Consensus Learning (virtual)**, *AAMAS*.