Changjiang Han

M.Sc. Student in Machine Learning, MBZUAI
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Research Interests

Areas: agentic reinforcement learning and agent memory; LLM personalization and generative recommendation; multi-agent communication and evaluation.

I am an M.Sc. student in Machine Learning at MBZUAI and a researcher at the Cyber-Physical Intelligence Lab (CPIL), advised by Prof. Xue (Steve) Liu. My research builds LLM agents that are capable, personalized, and learn reliably from feedback. In **agentic RL and memory**, I study how the data agents learn from (tasks, environments and trajectories) scales and should be synthesized (NeurIPS 2026), and how knowledge an agent retrieves can be turned into parametric memory so that it no longer needs online retrieval (ResMem, first author). In **personalization and generative recommendation**, I locate the attention heads that drive personalization in LLMs (ACL 2026), and restore the collaborative signal that semantic-ID tokenization loses by describing users in personalized natural language (first author). At JD.com I was co-first author of OxygenREC-v2, the next generation of the generative recommender in JD's production system. In **multi-agent systems**, I audit what agents communicate in multimodal social deduction games (EMNLP 2026) and study the semantics of agent communication protocols.

Education

Mohamed bin Zayed University of Artificial Intelligence (MBZUAI) — Abu Dhabi, UAE
M.Sc. in Machine Learning — Sept. 2025 – Present
Supervisor: Prof. Xue (Steve) Liu.

Huazhong University of Science and Technology (HUST) — Wuhan, China
B.Eng. in Electronic and Information Engineering (Seed Class) — Sept. 2021 – June 2025
GPA: 3.88/4.00. Outstanding Undergraduate Thesis Award (Top 3%); Outstanding Graduate (Top 15%).

Industry Experience

JD.com — Beijing, China
Research Intern, Smart Marketing and Recommendation Department, JD Retail — Apr. 2026 – Sept. 2026
Mentor: Qingyang Li. Worked on the OxygenREC generative recommendation architecture, including reasoning instructions for end-to-end generative recommendation. Co-first author of OxygenREC-v2; first author of SID-NL.

Research Experience

State Key Laboratory of Brain-Machine Intelligence, Zhejiang University — Hangzhou, China
Research Intern — May 2024 – Sept. 2024
Supervisor: Prof. Gang Pan. Worked on EEG data preprocessing, neuron parameter design for spiking neural networks, and hybrid SNN–ANN architectures.

Projects

Evidence

Developer Mar. 2026 – Present

A next-generation publishing platform for all sciences, going beyond PDFs, with interactive, online-executable publications that can import each other and evolve with new data.

Publications

* equal contribution.

Conference Proceedings

Bowei He, Yankai Chen, Xiaokun Zhang, **Changjiang Han**, Ye Yuan, Chong Li, Xue Liu. *How Data Scales in Agentic Reinforcement Learning: Laws and Synthesis Strategies*. In **NeurIPS 2026**.

Ye Yuan, Rui Song, Weien Li, Zeyu Li, Haochen Liu, Xiangyu Kong, **Changjiang Han**, Yonghan Yang, Zichen Zhao, Zixuan Dong, Fuyuan Lyu, Bowei He, Haolun Wu, Jikun Kang, Xue Liu. *QUACK: Questioning, Understanding, and Auditing Communicated Knowledge in Multimodal Social Deduction Agents*. In **EMNLP 2026**.

Weixu Zhang, Ye Yuan, **Changjiang Han**, Yuxing Tian, Zipeng Sun, Linfeng Du, Jikun Kang, Hong Kang, Xue Liu, Haolun Wu. *Preference Heads in Large Language Models: A Mechanistic Framework for Interpretable Personalization*. In **ACL 2026**.

Preprints & Under Review

Changjiang Han, Bowei He, Ye Yuan, Weixu Zhang, Haolun Wu, Xue Liu, Jikun Kang. *From Lookups to Lessons: Turning Retrieved Knowledge into Parametric Memory*. **arXiv:2611.00450**, 2026.

Changjiang Han, Qingyang Li, Yaqiang Zang, Jikun Kang, Pinghua Gong, Xue Liu, Bowei He. *Restoring Collaborative Signals in Semantic-ID Generative Recommendation via Personalized Natural Language*. **arXiv:2607.27682**, 2026.

Guo Tang*, Hanye Wu*, **Changjiang Han***, Qingyang Li, Ming Zhang, Xiangyu Qian, Yanchen Qiao, Huanjie Wang, Zhi Ma, Zhen Li, Yaqiang Zang, Pinghua Gong. *OxygenREC-v2: Internalizing Discrimination into Generative Recommendation*. **arXiv:2607.24255**, 2026. (Industry, JD.com)

Ye Yuan, Weien Li, Rui Song, Zeyu Li, Haochen Liu, Xiangyu Kong, Zixuan Dong, Linfeng Du, Zipeng Sun, Weixu Zhang, Jiaxin Huang, **Changjiang Han**, Yonghan Yang, Zichen Zhao, Xiuyuan Hu, Haolun Wu, Yankai Chen, Fengran Mo, Jikun Kang, Bowei He, Dawn Song, Philip S. Yu, Xue Liu. *Discrete Diffusion Models: A Unified Framework from Tokenization to Generation*. **arXiv:2607.13431**, 2026.

Dun Yuan, Fuyuan Lyu, Ye Yuan, Weixu Zhang, Bowei He, Jiayi Geng, Linfeng Du, Zipeng Sun, Yankai Chen, **Changjiang Han**, Jikun Kang, Xi Chen, Haolun Wu, Xue Liu. *Beyond Message Passing: A Semantic View of Agent Communication Protocols*. **arXiv:2604.02369**, 2026.

Skills

Programming: Python, PyTorch; distributed training on SLURM GPU clusters.
Languages: Mandarin Chinese (native); English (fluent).

References

Prof. Xue (Steve) Liu (M.Sc. Supervisor)
Professor, MBZUAI and McGill University
FCAE, FIEEE

Qingyang Li (Internship Mentor)
Algorithm Engineer, JD Retail, JD.com