Xintao Wang

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BIOGRAPHY

Xintao Wang (王鑫涛) is a third year Ph.D candidate at Fudan University in the School of Computer Science. He is deeply fascinated with ACG (Anime, Comics & Games) culture, and is devoted to revolutionizing the ACG industry with AI techniques. Hence, his research interests primarily focus on human-like generative agents and their personas, including (but not limited to):

- **Role-Playing Language Agents**: Targeting at creating AI agents that faithfully represent specific personas, including: (1) Agents for fictional characters from books and ACG, whose applications include virtual companions, games, and content creation; and (2) Agents for real-world individuals, which deeply understand user personas to serve as their digital proxies or personal assistants.

- **Cognitive Modeling in Language Models**: Focusing on integrating anthropomorphic cognition into LLMs, such as ego-awareness, social intelligence, personalities, etc. The goal is to promote LLMs' understanding of the inner world of themselves and others, hence enabling them to generate more cognitively-aligned and human-like responses.

EDUCATION

Fudan University (Shanghai)   2021 - 2026 (estimated)
Ph.D. in School of Computer Science
- Ph.D. Advisor: Yanghua Xiao
- Topics: Personas and Personalization of LLMs, Language Agents, Knowledge-guided Language Generation

Fudan University (Shanghai)   2017 - 2021
B.S. in School of Computer Science   *Major GPA: 3.87/4.0, Rank: 10/161*
- Advisor: Yanghua Xiao, Xipeng Qiu
- Topics: Language Models and Knowledge Graphs

EXPERIENCE

Chat-Haruhi-Suzumiya (Open-source Project, 1.6k Stars)   Aug 2023 - Mar 2024
- Role: Research Team Leader; Mentor: Cheng Li
- Responsibilities: Lead the research project on the personality analysis of role-playing language agents.

Knowledge Works Laboratory at Fudan University (Shanghai, China)   Sep 2020 - Present
- Role: Student Research Leader, Advisor: Yanghua Xiao
- Responsibilities: Lead the research groups on (1) role-playing language agents and (2) knowledge-enhanced LLM applications. Together, we co-authored and published multiple research papers.

FudanNLP Group at Fudan University (Shanghai, China)   Jul 2019 - Sep 2020
- Role: Student Researcher, Advisor: Xipeng Qiu
- Responsibilities: Worked on fine-tuning language models for NLP tasks.

SELECTED AWARDS

Chinese National Scholarship (Top 1%)	2022
Excellent Graduates of Shanghai (Top 5%)	2022
Chinese National Scholarship (Top 1%)	2020
Huawei Scholarship (Top 3%)	2019
Hhctea Freshman Scholarship (Top 7%)	2017

SELECTED PUBLICATIONS

[*: Equal Contribution; †: Project Leader]

[1] **From Persona to Personalization: A Survey on Role-Playing Language Agents**
Jiangjie Chen*, **Xintao Wang***†, Rui Xu*, Siyu Yuan*, Yikai Zhang*, Wei Shi*, Jian Xie*, Shuang Li, Ruihan Yang, Tinghui Zhu, Aili Chen, Nianqi Li, Lida Chen, Caiyu Hu, Siye Wu, Scott Ren, Ziquan Fu, Yanghua Xiao.
Preprint, 2024

[2] **InCharacter: Evaluating Personality Fidelity in Role-Playing Agents through Psychological Interviews**
Xintao Wang, Xiao Yunze, Jen-Tse Huang, Siyu Yuan, Rui Xu, Haoran Guo, Quan Tu, Yaying Fei, Ziang Leng, Wei Wang, Jiangjie Chen, Cheng Li, Yanghua Xiao.
Long Paper, in: **ACL 2024**

[3] **SurveyAgent: A Conversational System for Personalized and Efficient Research Survey**
Xintao Wang*†, Jiangjie Chen*, Nianqi Li, Lida Chen, Xinfeng Yuan, Wei Shi, Xuyang Ge, Rui Xu, Yanghua Xiao.
Preprint, 2024

[4] **Character is Destiny: Can Large Language Models Simulate Persona-Driven Decisions in Role-Playing?**
Rui Xu, **Xintao Wang**, Jiangjie Chen, Siyu Yuan, Xinfeng Yuan, Jiaqing Liang, Zulong Chen, Xiaoqing Dong, Yanghua Xiao.
Preprint, 2024

[5] **Light Up the Shadows: Enhance Long-Tail Entity Grounding with Concept-Guided Vision-Language Models**
Yikai Zhang, Qianyu He, **Xintao Wang**, Siyu Yuan, Jiaqing Liang, Yanghua Xiao.
Long Paper, in: **Findings of ACL 2024**

[6] **Evaluating Character Understanding of Large Language Models via Character Profiling from Fictional Works**
Xinfeng Yuan, Siyu Yuan, Yuhan Cui, Tianhe Lin, **Xintao Wang**, Rui Xu, Jiangjie Chen, Deqing Yang.
Preprint, 2024

[7] **Prototypical concept representation**
Xintao Wang, Jiaqing Liang, Yanghua Xiao, Wei Wang.
Long Paper, in: **TKDE 2022**

[8] **Language Models as Knowledge Embeddings**
Xintao Wang, Qianyu He, Jiaqing Liang, Yanghua Xiao.
Regular Paper, in: **IJCAI 2022**

[9] **Knowledgpt: Enhancing large language models with retrieval and storage access on knowledge bases**
Xintao Wang, Qianwen Yang, Yongting Qiu, Jiaqing Liang, Qianyu He, Zhouhong Gu, Yanghua Xiao, Wei Wang
Preprint, 2023

[10] **Maps-kb: A million-scale probabilistic simile knowledge base**
Qianyu He, **Xintao Wang**, Jiaqing Liang, Yanghua Xiao
Regular Paper, in: **AAAI 2023**