# 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, Shanghai, China. He is deeply fascinated with ACG culture, and is devoted to revolutionizing the ACG industry with AI techniques. Hence, his research interests primarily focus on autonomous generative agents and their personas and personalization, including (but not limited to):

- **Autonomous Generative Agents**: Developing advanced methods for autonomous, trustworthy, and personalized language agents. This extends towards the exploration of their interactions with multiple agents and real environments.

- **Cognitive Modeling in Language Models**: Focusing on integrating elements from cognitive science into LLMs, such as self-awareness, emotional perception, social intelligence, theory-of-mind, 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.

- **Role-Playing Language Agents**: Targetting at creating AI agents that embody specific characters, including: (1) Agents for fictional characters from literature, films, anime, or games, which are utilized in primarily entertainment applications such as chatbots and interactive games; and (2) Agents that simulate real-world individuals, providing personalized services by mimicking their behaviors.

## Education

**Fudan University** (Shanghai)    2021 - 2026
*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)    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. Memtored near 10 graduate and undergraduate students. 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

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| **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; ♠: Me as Corresponding Author;]

[1] **From Persona to Personalization: A Survey on Role-Playing Language Agents**
**Authors:** 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**
**Authors: 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.
*ACL, 2024*

[3] **SurveyAgent: A Conversational System for Personalized and Efficient Research Survey**
**Authors: 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?**
**Authors:** 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**
**Authors:** Yikai Zhang, Qianyu He, **Xintao Wang**, Siyu Yuan, Jiaqing Liang, Yanghua Xiao.
*ACL Findings, 2024*

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

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

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

## MORE PUBLICATIONS

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

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