

# Gaole He

## Curriculum Vitae

Latest Update: Oct-20-2025  
Building 28, 2628 XE Delft, the Netherlands  
✉ [g.he@tudelft.nl](mailto:g.he@tudelft.nl)  
📄 [richardhgl.github.io/](https://richardhgl.github.io/)

### Research Interests

My current research focuses on:

- Exploring how humans can collaborate with **Large Language Models (LLMs)** in an agentic workflow to boost work efficiency
- Designing effective explanation methods (e.g., using **analogy**) and explanation communication (e.g., **conversation**) to facilitate human-AI collaboration (target users: laypeople, non-experts)
- Knowledge Graph Reasoning and Natural Language Processing
- Analyzing user factors (e.g., **cognitive bias**) in shaping **trust and reliance** in human-AI collaboration

### Education Qualifications

- Jul 2021 - **PhD**, *Computer Science*, Delft University of Technology, Delft, Netherlands.  
Oct 2025 Supervised by [Ujwal Gadiraju](#) and [Geert-Jan Houben](#).  
*Topics: Human-AI Collaboration, Human-centered XAI*
- 2018 - 2021 **M.Eng.**, *Computer Science*, Renmin University of China, Beijing, China, supervised by [Wayne Xin Zhao](#) and [Ji-Rong Wen](#).  
*Topics: Knowledge Base, Natural Language Processing, Deep Learning*
- 2014 - 2018 **B.Eng.**, *Computer Science and Mathematics (minor)*, Renmin University of China, Beijing, China, supervised by [Wayne Xin Zhao](#).  
*Topics: Network Embedding, Recommender System*

### Academic Experience

#### Internship Experience

- June 2025 - Applied Scientist Intern at Stores Foundational AI - Neo, Amazon (Seattle).  
Sep 2025 Mentor: [Yichuan Li](#), [Daheng Wang](#), and [Besnik Fetahu](#). Production job: training LLMs to learn user preferences.
- Feb 2024 - Visiting PhD Researcher, supervised by [Gianluca Demartini](#) in The ARC Centre  
May 2024 for Information Resilience (CIRES), the University of Queensland (UQ). Plan-then-execute LLM Agents - CHI'25 publication.
- Nov 2019 - Research Assistant, supervised by [Jing Jiang](#), [Yunshi Lan](#) in Living Analytics  
Aug 2020 Research Center (LARC), Singapore Management University (SMU). Retrieval-based KBQA - WSDM'21 publication.

#### Teaching Experience

- CS4145, [Crowd Computing](#), master course, guest lecturer, 2024.
- CS4360, [Natural Language Processing](#), master course, teaching assistant, 2023.

- CS4145, [Crowd Computing](#), master course, teaching assistant, 2022, 2023.
- IN4326, [Seminar Web Information Systems](#), master course, teaching assistant, 2022, 2023.
- Master thesis supervisor. Every year, I mentor at least two master students for thesis projects (around 9 months). The mentorship includes weekly meetings, technical support, and academic writing. Some excellent work will finally result in a top-tier conference/journal publication. 2022- Now
- Student supervisor for Turing class of Information School, Renmin University of China, 2018 - 2020

#### Professional Service

- PC: CSCW 2026; AC: CHI 2025 LBW
- Reviewer/sub-reviewer: CHI, CSCW, IUI, WWW, KDD, SIGIR, CCL, HCOMP, DIS
- Journal Reviewer: CSUR, TOCHI, TiiS, JAIR, Neural Networks, IP & M, IJHCI, IJHCS, Science China
- Workshop Organizer: CSCW 2023 Workshop on Understanding and Mitigating Cognitive Biases in Human-AI Collaboration

### Selected Publications

\* indicates equal contribution. Only selected papers are presented here. Several leading papers about human-AI collaboration with LLMs are still under review. For full list, please refer to my [google scholar page](#).

#### Work in Progress

**Gaole He**, Patrick Hemmer, Michael Vössing, Max Schemmer, Ujwal Gadiraju. Fine-grained Appropriate Reliance: Human-AI Collaboration with A Multi-step Transparent Decision Workflow for Complex Task Decomposition.

#### Conference Papers

- CHI 2025 **Gaole He**, Gianluca Demartini, Ujwal Gadiraju. Plan-Then-Execute: An Empirical Study of User Trust and Team Performance When Using LLM Agents As A Daily Assistant.
- IUI 2025 **Gaole He**, Nilay Aishwarya, Ujwal Gadiraju. Is Conversational XAI All You Need? Human-AI Decision Making With a Conversational XAI Assistant.
- HyperText 2024 **Gaole He**, Abri Bharos, Ujwal Gadiraju. To Err Is AI! Debugging as an Intervention to Facilitate Appropriate Reliance on AI Systems.
- CSCW 2023 **Gaole He\***, Stefan Buijsman\*, Ujwal Gadiraju. How Stated Accuracy of an AI System and Analogies to Explain Accuracy Affect Human Reliance on the System.
- CHI 2023 **Gaole He**, Lucie Kuiper, Ujwal Gadiraju. Knowing About Knowing: An Illusion of Human Competence Can Hinder Appropriate Reliance on AI Systems.
- HCOMP 2022 **Gaole He**, Agathe Balayn, Stefan Buijsman, Jie Yang, Ujwal Gadiraju. It Is Like Finding a Polar Bear in the Savannah! Concept-level AI Explanations with Analogical Inference from Commonsense Knowledge. **Best Paper Award.**

- WWW 2022 Agathe Balayn\*, **Gaole He**\*, Andrea Hu\*, Jie Yang, Ujwal Gadiraju. Ready Player One! Eliciting Diverse Knowledge Using A Configurable Game. **Best Paper Candidate (3.4% of accepted papers), honorable nomination.**
- IJCAI 2021 Yunshi Lan\*, **Gaole He**\*, Jinhao Jiang, Jing Jiang, Wayne Xin Zhao, Ji-Rong Wen. A Survey on Complex Knowledge Base Question Answering: Methods, Challenges and Solutions.
- WSDM 2021 **Gaole He**, Yunshi Lan, Jing Jiang, Wayne Xin Zhao and Ji-Rong Wen. Improving Multi-hop Knowledge Base Question Answering by Learning Intermediate Supervision Signals.
- WWW 2020 **Gaole He**, Junyi Li, Wayne Xin Zhao, Peiju Liu and Ji-Rong Wen. Mining Implicit Entity Preference from User-Item Interaction Data for Knowledge Graph Completion via Adversarial Learning.
- [Journal Papers](#)
- JAIR 2024 **Gaole He**, Agathe Balayn, Stefan Buijsman, Jie Yang, Ujwal Gadiraju. Opening the Analogical Portal to Explainability: Can Analogies Help Laypeople in AI-assisted Decision Making?
- TKDE 2022 Yunshi Lan\*, **Gaole He**\*, Jinhao Jiang, Jing Jiang, Wayne Xin Zhao and Ji-Rong Wen. Complex Knowledge Base Question Answering: A Survey.

## Selected Honors, Awards, & Recognitions


- Selected to attend [Heidelberg Laureate Forum 10th](#), 2023
- Gary Marsden Travel Award for CHI'23, 2023
- HCOMP Best Paper, 2022
- WWW Best Paper Nomination, 2022
- HCOMP Best Demo, 2021
- Excellent Graduate in Beijing (Highest honor for graduate set by the government of Beijing), 2021
- JingDong Scholarship, 2020
- First-Class scholarship for postgraduate student, 2018, 2019
- American College Mathematical Modeling Contest Meritorious Winner, 2016
- The top scorer of science (#1) in the college entrance exam (Gaokao) in Zhong County, Chongqing, 2014

## Technical and Personal Skills

- Language: Chinese, English
- Programming: Python, Pytorch, Java, C/C++
- Familiar with deep learning, graph embedding, and graph neural networks (3 years in master program)
- Familiar with academic writing
- Basic statistical analysis in human studies (HCI)
- Basic interface development: Flask, Javascript, Bootstrap

---

## Open Sourced Project

I keep the habit of sharing the data and code in my research projects / published papers on Github. Please refer to my  [Github](#) homepage for my projects. I list some representative projects as following:

- [Neural State Machine in KBQA](#) (139 star on Github). Role: main developer.
- [KB4Rec](#) (330 star on Github). Role: main developer.
- [TextBox](#) (1.1 k star on Github). Role: main developer in initial version.
- [Plan-then-execute LLM agent Demo for human-AI collaboration](#). Role: main developer.