CURRICULUM VITAE

Heng Zheng

School of Information Sciences
University of Illinois Urbana-Champaign, Champaign, IL
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Academic Appointments

2024-08 – present	Postdoctoral Research Associate, University of Illinois Urbana-Champaign Supervisor: Jodi Schneider, Bertram Ludäscher Funded by the UIUC iSchool Postdoctoral Research Associate Program and grants from the Institute of Museum and Library Services and the Alfred P. Sloan Foundation.
2024-02 – 2024-08	Postdoctoral Research Associate, University of Illinois Urbana-Champaign Supervisor: Jodi Schneider Funded by grants from the Institute of Museum and Library Services and the Alfred P. Sloan Foundation.
2023-01 – 2024-02	Research Associate, University of Illinois Urbana-Champaign Supervisor: Jodi Schneider Funded by grants from the Institute of Museum and Library Services and the Alfred P. Sloan Foundation.

Education

2024	Ph.D. in Artificial Intelligence, University of Groningen, The Netherlands Dissertation Title: *Arguments, Cases and Their Hardness: A Formal Theory With Case Studies in AI and Law*. Supervisors: Bart Verheij and Davide Grossi
2018	Master of Logic, Sun Yat-sen University, China Supervisors: Minghui Xiong and Bart Verheij
2016	Bachelor of Information Management and Information Systems, Dalian Maritime University, China

Publications

Peer-reviewed conference publications

2024	**Heng Zheng**, Y. Fu, M. J. Sarol, I. Sarraf, and J. Schneider. "Addressing Unreliability Propagation in Scientific Digital Libraries". In: *The 2024 ACM/IEEE Joint Conference on Digital Libraries (JCDL '24)*. ACM, New York, 2024. DOI: 10.1145/3677389.3702526

2024 **H. Zheng***, T. D. Ledford, and J. Schneider. "Arguing About Controversial Science in the News: Does Epistemic Uncertainty Contribute to Information Disorder?" In: *Wisdom, Well-Being, Win-Win. iConference 2024.* Ed. by I. Sserwanga, H. Joho, J. Ma, P. Hansen, D. Wu, M. Koizumi, and A. J. Gilliland. Lecture Notes in Computer Science. Cham: Springer Nature Switzerland, 2024, pp. 211–235. DOI: [10.1007/978-3-031-57860-1_16](10.1007/978-3-031-57860-1_16)

2023 J. Schneider, J. Lee, **H. Zheng**, and M. O. Salami. "Assessing the Agreement in Retraction Indexing across 4 Multidisciplinary Sources: Crossref, Retraction Watch, Scopus, and Web of Science". In: *27th International Conference on Science, Technology and Innovation Indicators (STI 2023).* 2023. DOI: [10.55835/6441e5cae04dbe5586d06a5f](10.55835/6441e5cae04dbe5586d06a5f)

2021 **H. Zheng***, D. Grossi, and B. Verheij. "Hardness of Case-Based Decisions: a Formal Theory". In: *Proceedings of the Eighteenth International Conference on Artificial Intelligence and Law.* ACM, New York, 2021, pp. 149–158. DOI: [10.1145/3462757.3466071](10.1145/3462757.3466071)

2020 **H. Zheng***, D. Grossi, and B. Verheij. "Precedent Comparison in the Precedent Model Formalism: A Technical Note". In: *Legal Knowledge and Information Systems. Proceedings of JURIX 2020: The Thirty-third Annual Conference.* Ed. by S. Villata, J. Harašta, and P. Kšemen. Vol. 334. Amsterdam: IOS Press, 2020, pp. 259–262. DOI: 10.3233/FAIA200878

2020 **H. Zheng***, D. Grossi, and B. Verheij. "Case-Based Reasoning with Precedent Models: Preliminary Report". In: *Computational Models of Argument. Proceedings of COMMA 2020.* Ed. by H. Prakken, S. Bistarelli, F. Santini, and C. Taticchi. Vol. 326. Amsterdam: IOS Press, 2020, pp. 443–450. DOI: 10.3233/FAIA200528

2018 **H. Zheng***, M. Xiong, and B. Verheij. "Checking the Validity of Rule-Based Arguments Grounded in Cases: A Computational Approach". In: *Legal Knowledge and Information Systems. JURIX 2018: The Thirty-first Annual Conference.* Ed. by M. Palmirani. Vol. 313. Amsterdam: IOS Press, 2018, pp. 220–224. DOI: [10.3233/978-1-61499-935-5-220](10.3233/978-1-61499-935-5-220)

Peer-reviewed workshop papers

2023 A.-S. Lippolis, A. Klironomos, D. F. Milon-Flores, **H. Zheng**, A. Jouglar, E. Norouzi, and A. Hogan. "Enhancing Entity Alignment Between Wikidata and ArtGraph Using LLMs". In: *Semantic Web and Ontology Design for Cultural Heritage 2023 (SWODCH 2023).* Ed. by A. Bikakis, R. Ferrario, S. Jean, B. Markhoff, A. Mosca, and M. Nicolosi Asmundo. CEUR-WS.org, 2023. URL: https://ceur-ws.org/Vol-3540/paper7.pdf

2023 **H. Zheng*** and J. Schneider. "Can Argumentation Help Understand How Scientific Information Reaches the Public?" In: *Information Science Trends (IST) 2023: Information Science Perspectives on Documenting Processes and Practices.* Zenodo, 2023. DOI: 10.5281/zenodo.8023747

2021 **H. Zheng***, D. Grossi, and B. Verheij. "A Formal Approach to Case Comparison in Case-Based Reasoning: Research Abstract". In: *The First International Workshop on Logics for New-Generation Artificial Intelligence (LNGAI 2021)*. Ed. by B. Liao, J. Luo, and L. van der Torre. London: College Publications, 2021, pp. 150–153. URL: http://www.collegepublications.co.uk/LNGAI/?00001

2021 **H. Zheng**, D. Grossi, and B. Verheij. "Logical Comparison of Cases". In: *AI Approaches to the Complexity of Legal Systems XI-XII. AICOL AICOL XAILA 2020 2018 2020*. Ed. by V. Rodríguez-Doncel, M. Palmirani, M. Araszkiewicz, P. Casanovas, U. Pagallo, and G. Sartor. Lecture Notes in Computer Science. Cham: Springer, 2021, pp. 125–140. DOI: 10.1007/978-3-030-89811-3_9

2020 **H. Zheng***, D. Grossi, and B. Verheij. "Precedent Comparison in the Precedent Model Formalism: Theory and Application to Legal Cases". In: *Proceedings of the EXplainable and Responsible AI in Law (XAILA) Workshop at JURIX 2020*. Ed. by G. J. Nalepa, M. Araszkiewicz, M. Atzmueller, B. Verheij, and S. Bobek. CEUR-WS, 2020. URL: https://ceur-ws.org/Vol-2891/XAILA-2020_paper_3.pdf

Other peer-reviewed publications

2021 **H. Zheng**. "Modeling Case-Based Reasoning with the Precedent Model Formalism: An Overview". In: *Online Handbook of Argumentation for AI*. ed. by F. Castagna, F. Mosca, S. Mumford J. Sarkadi, and Á. Xydis. Vol. 2. arXiv, 2021, pp. 72–76. DOI: https://doi.org/10.48550/arXiv.2106.10832

Other publications

Conference Papers with Proceedings (Reviewed as Abstracts)

2024 **H. Zheng***, Y. Fu, and J. Schneider. *How Does a Piece of Unreliable Code Affect Its Citing Publications? An Argumentation Analysis*. The Thirteenth Conference of the Ontario Society for the Study of Argumentation, OSSA 13. URL: https://jodischneider.com/pubs/ossa2024.pdf

Poster

2024 X. Zhou, **H. Zheng**, and J. Schneider. *Recognizing People, Organizations, and Locations Mentioned in the News*. Poster at the 2024 UIUC School of Information Sciences Research Showcase. 2024. URL: https://hdl.handle.net/2142/125113

2024 Y. Fu, **H. Zheng**, E. Vandel, and J. Schneider. *Assessing the Impact of a Computational Chemistry Protocol*. Poster at the American Chemical Society 2024 Fall Meeting. URL: https://hdl.handle.net/2142/124768

2023 **H. Zheng***. *Using Argument Graphs to Audit Reasoning in Scientific Publications*. Poster at the International Semantic Web Research Summer School (ISWS 2023). 2023. URL: https://hdl.handle.net/2142/118103

Book chapter without peer review

2021 **H. Zheng** and B. Verheij. "Rules, Cases and Arguments in Artificial Intelligence and Law". In: *Research Handbook on Big Data Law*. Ed. by R. Vogl. Cheltenham: Edgar Elgar Publishing, 2021, pp. 373–387. URL: https://www.e-elgar.com/shop/gbp/research-handbook-on-big-data-law-9781788972819.html

* Primary presenter

Projects & Funding

- XAICA: Explainable AI via Computational Argumentation (under review)
  - 2025 Cardiff University-University of Illinois System Joint Research and Innovation Seed Grants Program
  - Amount: $40,000
  - Role: Postdoctoral researcher. Main proposal author.
- Overseas Study Program of Guangzhou Elite Project for Ph.D. study (2018 – 2022)
  - Funded by The Guangzhou Elites Scholarship Council
  - Amount: ∼$88,000
  - Role: Ph.D. researcher

Service

Reviewer - Journals

- *Studies in Logic*

Reviewer - Conferences

- Workshop on AI, Law and Philosophy at the 36th International Conference on Legal Knowledge and Information Systems (ALP@JURIX 2023)
- Computational Models of Natural Argument (CMNA 2023, 2024)
- The Online Handbook of Argumentation for AI (OHAAI 2022, 2023)
- The International Open Benchmark Council (BenchCouncil) International Symposium on Intelligent Computers, Algorithms, and Applications, AI for Law Area (2023)

Additional Reviewer - Conferences

- The 3rd International Conference on Artificial Intelligence Logic and Applications (AILA 2023)
- The 27th International Conference on Science, Technology and Innovation Indicators (STI 2023)

Service for the School of Information Sciences, University of Illinois Urbana–Champaign

2024 AI Curriculum Committee

Award

2023 Best Team Award and Best Presentation Award at the International Semantic Web Summer School 2023

Teaching

School of Information Sciences, University of Illinois at Urbana-Champaign

Instructor of Record

Fall 2024   Information Modeling
MS in Information Management required course
School of Information Sciences, University of Illinois at Urbana-Champaign

Guest Lectures

2024-03-28   "Using Argumentation to Model Information"
Information Modeling (Instructor: Karen Wickett)
School of Information Sciences, University of Illinois at Urbana-Champaign
2023-11-13   "Argumentation for Information Modeling"
Information Modeling (Instructor: Bertram Ludäscher)
School of Information Sciences, University of Illinois at Urbana-Champaign

Department of Artificial Intelligence, University of Groningen, NL

Teaching Assistant

2019   Arguing Agents (MS in Artificial Intelligence course), University of Groningen, the Netherlands

Programming Languages

Prolog; Python; C; Java; SQL

Markup Languages

LaTeX

Languages

English (fluent); Mandarin (native); Cantonese (native); Dutch (intermediate)