

Yuanxi (Rosa) Fu
Curriculum Vitae

University of Illinois Urbana-Champaign
School of Information Sciences
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RESEARCH AREAS

- Scientific reasoning and argumentation
- Conceptual foundations in information science
- Information modeling and database design
- Data infrastructure

EDUCATION

University of Illinois at Urbana-Champaign, School of Information Sciences	
Ph.D. Information Sciences	expected May 2027
<i>Dissertation: Unreliability propagation: conceptual foundations for justified action</i>	
M.S. Bioinformatics	2021
University of Illinois at Urbana-Champaign, Department of Chemistry	
Ph.D. Chemistry	
<i>Dissertation: High pressure surface enhanced Raman scattering spectroscopy</i>	2015
Nanjing University, School of Chemistry and Chemical Engineering, China	
B.S. Chemistry	2008
<i>Thesis: Computational study of adsorption induced spin polarization of pentacene on metal surfaces</i>	

SELECTED AWARDS AND HONORS

Eugene Garfield Doctoral Dissertation Fellowship, Beta Phi Mu International Honor Society	2025
Journal of the Association for Information Science and Technology (JASIST) top reviewers	2021

IMMIGRATION STATUS

U.S. permanent resident

PUBLICATIONS (student mentees underlined, †senior author)

Peer reviewed journal papers

- J6 **Fu, Y.**, Clarke, C. V., Moer, M. V., & Schneider, J. (2024). Exploring evidence selection with the inclusion network. *Quantitative Science Studies*, 5(1), 219-245. https://doi.org/10.1162/qss_a_00287
- J5 Schneider, J., Woods, N. D., Proescholdt, R., & **the RISRS Team**. (2022). Reducing the inadvertent spread of retracted science: recommendations from the RISRS report. *Research Integrity and Peer Review*, 7(1), 6. <https://doi.org/10.1186/s41073-022-00125-x>
- J4 **Fu, Y.**, & Dlott, D. D. (2015). Single molecules under high pressure. *The Journal of Physical Chemistry C*, 119(11), 6373–6381. <https://doi.org/10.1021/jp512858u>
- J3 Brown, K. E., **Fu, Y.**, Shaw, W. L., & Dlott, D. D. (2012). Time-resolved emission of dye probes in a shock-compressed polymer. *Journal of Applied Physics*, 112(10), 103508. <https://doi.org/10.1063/1.4765687>
- J2 **Fu, Y.**, Friedman, E. A., Brown, K. E., & Dlott, D. D. (2011). Vibrational spectroscopy of nitroaromatic self-assembled monolayers under extreme conditions. *Chemical Physics Letters*, 501(4), 369–374. <https://doi.org/10.1016/j.cplett.2010.12.013>
- J1 Chen, W., Li, H., Huang, H., **Fu, Y.**, Zhang, H. L., Ma, J., & Wee, A. T. S. (2008). Two-dimensional pentacene:3,4,9,10-perylenetetracarboxylic dianhydride supramolecular chiral networks on Ag(111). *Journal of the American Chemical Society*, 130(37), 12285–12289. <https://doi.org/10.1021/ja801577z>

Peer Reviewed Conference Full paper

- C2 Zheng, H.*, **Fu, Y.***, Sarol, M. J., **Sarraf, L.**, & Schneider, J. (2024). Addressing unreliability propagation in scientific digital libraries. *Proceedings of the 24th ACM/IEEE Joint Conference on Digital Libraries*, 1–11. <https://doi.org/10.1145/3677389.3702526> (*equal contribution first author)
- C1 **Fu, Y.**, & Schneider, J. (2020). Towards knowledge maintenance in scientific digital libraries with the keystone framework. *Proceedings of the ACM/IEEE Joint Conference on Digital Libraries in 2020*, 217–226. <https://doi.org/10.1145/3383583.3398514>

Peer Reviewed Conference Short Paper

- CS3 **Fu, Y.**, **Yuan, J.**, & Schneider, J. (2021). Using citation bias to guide better sampling of scientific literature. *Proceedings of the 18th International Conference on Scientometrics & Informetrics*, 419–424. <http://jodischneider.com/pubs/issi2021.pdf>
- CS2 Hsiao, T.K.*, **Fu, Y.***, & Schneider, J. (2020). Visualizing evidence-based disagreement over time: The landscape of a public health controversy 2002–2014. *Proceedings of the Association for Information Science and Technology*, 57(1), e315. <https://doi.org/10.1002/pr2.315> (*equal contribution first author)
- CS1 **Fu, Y.**, **Christensen, J. M.**, & Dlott, D. D. (2014). Molecular adsorbates under high pressure: A study using surface-enhanced Raman scattering spectroscopy. *Journal of Physics: Conference Series*, 500(12), 122004. <https://doi.org/10.1088/1742-6596/500/12/122004>

Peer Reviewed Workshop Papers

- W4 **Stade, C.**, Schneider, J., & **Fu, Y.†** (2025). From evidence to insights: GraphRAG as a dynamic knowledge layer for the collaboration for environmental evidence’s database of evidence reviews. *Proceedings of the 3rd International Workshop on Knowledge Graphs for Sustainability (KG4S 2025)*, 4002, 39–45. <https://ceur-ws.org/Vol-4002/short6.pdf>
- W3 **Fu, Y.**, & Schneider, J. (2025). Engineering the reproducible literature review section for scholarly publications and grant applications. *Proceedings of the AAAI Symposium Series*, 5(1), 360–364. <https://doi.org/10.1609/aaais.v5i1.35612>
- W2 **Fu, Y.**, & Schneider, J. (2024). An argumentation interface to facilitate human-machine collaboration in scientific research: A preliminary exploration. *Proceedings of the 24th Workshop on Computational Models of Natural Argument*. The 24th Workshop on Computational Models of Natural Argument (CMNA’24), Hagen, Germany. <https://ceur-ws.org/Vol-3769/paper4.pdf>
- W1 **Fu, Y.**, Schneider, J., & Blake, C. (2021). Finding keystone citations for constructing validity chains among research papers. *Companion Proceedings of the Web Conference 2021*, 451–455. (Sci-k 2021) <https://doi.org/10.1145/3442442.3451368>

TEACHING EXPERIENCE

Co-instructor: developing course modules and homework assignments, teaching class sessions, managing Canvas site

University of Illinois Urbana-Champaign, iSchool

- Concepts of Machine Learning 2025 Spring
- Ethics and Policy for Data Science 2024 Spring

Teaching assistant: grading, office hours, leading lab/discussion sessions, managing Canvas site

University of Illinois Urbana-Champaign, iSchool

- Data Management, Curation & Reproducibility 2026 Fall
- Theory and Practice of Data Cleaning (Coursera course) 2026 Summer

Volunteering

Certified instructor, the Carpentries

2020–current

- Teach basic programming and data science skills to students, researchers, and professionals
- Online teaching

Organizer and instructor, Explainable AI study group

2022–2023

SERVICE

Organizing committee, workshops

- Networks in Science of Science workshop 2024–current

- 1st workshop on Digital Infrastructures for Scholarly Content Objects	2021
Program Committee, conferences	
- ACM/IEEE Joint Conference on Digital Libraries (JCDL)	2026
- International Conference on Artificial Intelligence in Medicine (AIME)	2024
Reviewer, journals	
- <i>Journal of the Association for Information Science and Technology (JASIST)</i>	2021, 2026
- <i>Quantitative Science Studies</i>	2024
- <i>Scientometrics</i>	2024
- <i>Journal of Academic Ethics</i>	2023, 2025
- <i>Journal of the American Medical Informatics Association (JAMIA) Open</i>	2023
- <i>Knowledge Organization</i>	2021
Reviewer, conferences	
- The Annual Meeting of the Association for Information Science and Technology (ASIS&T)	2026
- The Web Conference	2027
Program Committee, workshops	
- International Workshop on Scientific Knowledge (Sci-K)	2025–current
- International Workshop on Computational Models of Natural Argument (CMNA)	2023–current
Reviewer, workshops	
- AI for Accelerated Materials Discovery (AI4Mat) Workshop	2024–current
University of Illinois Urbana-Champaign iSchool service	
- Organizer, Center for Informatics Research in Science and Scholarship speaker series	2024–2026
o The AI Disruption	2026 Spring
o Generative AI and the Future of Research	2025 Spring, Fall
o Study Science Scientifically: State of the Art and Prospects for Science of Science	2024 Fall
- Student representative, Diversity Committee	AY2023
- Student representative, MS Information Management/Bioinformatics sub-committee	AY2019
STUDENT MENTORING (U of I iSchool, unless otherwise noted)	
PhD student	
- Christoph Stadel, UW-Madison iSchool	2025 Summer–current
Master's students	
- Yu-Chen Tung	2026 Fall
- Prathamesh Patil	2022 Fall
- Saahil Hiranandani	2021 Spring
- Kartikey Dubey	2021 Fall
- Zhonghe Wan	2021 Fall–2022 Spring
Undergraduate students	
- Steven Wu	2026 Fall
- Yoyo Lin	2026 Fall
- Andrew Xie	2023 Fall
- Tongtong Gu	2023 Fall
- Ishita Sarraf, Grinnell College	2023 Summer
- Deyuan (Doreen) Yang, DePauw University	2023 Summer
- Tasnia Haque, Cornell University	2021 Summer
- Tiffany Lam, Cornell University	2021 Summer
- Muhammad Rahman, University of Washington, Seattle	2021 Summer
- Karla González-Cruz, University of Puerto Rico, Cayey	2021 Summer
- Jasmin Yuan	2021 Spring
PROFESSIONAL EXPERIENCE	
Beijing Sirithink Technology, China	Aug 2015–May 2019

Director of research and analysis, June 2016–May 2019

- Set the direction and ran the operations of a remote team of 20+ consultants, most of them PhD and master's students in STEM fields, who served the information needs of entrepreneurs, inventors, and investors in industries including pharmaceuticals, chemicals, oil & gas, energy, and agriculture.
- Led the team's work for a pharmaceutical client (2017-2019): 300+ technical reports on new medical devices and drugs, with visits to the client's R&D team in Beijing and to medical conferences.

Science writer, part-time, Aug 2015–May 2016

- Wrote news articles about emerging technology startups for the company's website, which led to the offer to lead its research team full time.

Center for Soft and Living Matter

Ulsan National Institute of Science and Technology (UNIST), South Korea

May 2015–May 2016

Research fellow, May 2015–May 2016

- Developed microscopy and spectroscopy protocols for studying polymer dynamics in crowded environments.

REFERENCES

Name: Jodi Schneider

Title: Associate Professor

Email: jodi@wisc.edu

Phone: 763-463-0779

Affiliation: The Information School, University of Wisconsin–Madison

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Relationship: PhD advisor

Name: Allen Renear

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Relationship: committee member

Name: Bertram Ludäscher

Title: Professor

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Affiliation: School of Information Sciences, University of Illinois Urbana-Champaign

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Relationship: committee member