

Yuanxi Fu

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Education

- 2021-current **Ph.D. Information Science (in progress)**
University of Illinois - Urbana-Champaign, IL, USA
Advisor: Prof. Jodi Schneider
- 2019-2021 **M.S. Bioinformatics**
University of Illinois - Urbana-Champaign, IL, USA
with a concentration in information science
- 2008-2015 **Ph.D. Chemistry**
University of Illinois - Urbana-Champaign, IL, USA
Thesis: High Pressure Surface Enhanced Raman Scattering Spectroscopy
Advisor: Prof. Dana D. Dlott
- 2004-2008 **B.S. Chemistry**
Nanjing University, China
Thesis: Computational Study of Adsorption Induced Spin Polarization of Pentacene on Metal Surfaces
Advisor: Prof. Jing Ma

Research Experience

- 09/2019 –
Current **Graduate research assistant, University of Illinois at Urbana-Champaign, USA**
Research focus: Scientific argumentation, research synthesis
Supervisor: Prof. Jodi Schneider
- 05/2015-
05/2016 **Research fellow, Center for Soft and Living Matter, Institute of Basic Science, South Korea**
Research focus: Polymer dynamics in a crowded environment
Supervisor: Prof. Steve Granick
- 01/2010 –
03/2015 **Graduate research assistant, University of Illinois at Urbana-Champaign, USA**
Research focus: High pressure surface enhanced Raman spectroscopy
Supervisor: Prof. Dana Dlott

Professional Experience

- 09/2017 –
05/2019 **Consulting project leader, Beijing Guanghui-Licheng Pharmaceutical, China**
- Led consulting project that researched emerging medical devices and pharmaceuticals in oncology, stomatology and orthopedics area to assist client's strategic decisions.
- Led a team of 10+ consultants and supervised the development of 300+ research reports of novel medical devices and pharmaceuticals.

- 06/2016 – **Director of research and analysis, Beijing Sirithink Technology, China**
05/2019
- Established and lead the department of research and analysis by managing remote consultants to work on technology-related consulting projects.
 - Established a network of 300+ subject experts (Sirithink scholars), most of whom hold or are pursuing advanced degrees in STEM in China, to serve on various consulting projects.

Teaching Experience

- 10/2021 – **Founder**, Explainable AI study group, UIUC iSchool. Teach students
current explainable AI techniques.
- 03/2020 – **Certified instructor with The Carpentries**. Teach programming and
current data science skills to students, researchers, and professionals from UIUC and other organizations.
- 08/2014 – **Teaching assistant**, Statistical Mechanics, University of Illinois at
12/2014 Urbana-Champaign
- 08/2009 – **Teaching assistant**, Physical Chemistry, University of Illinois at
12/2009 Urbana-Champaign
- 01/2009 – **Teaching assistant**, Physical Chemistry Lab, University of Illinois at
05/2009 Urbana-Champaign
- 08/2008 – **Teaching assistant**, General Chemistry Lab, University of Illinois at
12/2008 Urbana-Champaign

Mentoring Experience

- 08/2022 – **MS student independent study mentor**. Research project: Designing
12/2022 the WhoFundedIt database
- 01/2022 – **MS student independent study mentor**. Research project:
05/2022 Computable bibliography
- 10/2021 – **Graduate hourly research assistant mentor**. Research project:
current NeworkX programming
- 08/2021 – **MS student independent study mentor**. Research project:
12/2021 Computable bibliography
- 06/2021 – **Undergraduate summer research mentor**, American Physician
08/2021 Scientists Association's Virtual Summer Research Program (VSRP).
Research project: Text mining pipeline for extracting methods keystone citations.
- 09/2020 – **Undergraduate independent study mentor**. Research project:

- 05/2021 Identifying potential bias in science using citation network structures.
- 06/2011 – **Undergraduate summer research mentor.** Research project:
07/2011 Vibrational spectroscopy of nitroaromatic self-assembled monolayers under high pressure.

Preprints

1. **Fu, Y.**, Clarke, C. V., Moer, M. V., & Schneider, J. (2022). Exploring evidence selection with the inclusion network. MetaArXiv.
<https://doi.org/10.31222/osf.io/zh9vp> (submitted to *Quantitative Science Studies*)

Publications (student mentees underlined)

1. 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>
2. **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>
presentation: https://youtu.be/tmej4_2PCUc
3. **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. <https://doi.org/10.1145/3442442.3451368>
presentation: <https://youtu.be/9PJ3-LbjNU0>
4. 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>
5. **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>
6. **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>
7. **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>
8. 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>

9. **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>
10. 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>

Oral Presentations

1. **Fu, Y.** (2022, Oct). What can we learn from a network of scientific evidence? School of Information Sciences Colloquium, University of Illinois at Urbana-Champaign.
2. **Fu, Y.** (2022, July). The reality of research synthesis: One workflow and two case Studies. Luís Amaral Group, Northwestern University.

Poster Presentations (student mentees underlined)

1. Haque, T., Lam, T., Rahman, M., González-Cruz, K., Fu, Y., Schneider, J., Annotating data to train machine learning models to classify citations in biomedical papers, Poster presented at the 2022 American Physician Scientists Association Northeast Regional Conference, January 15-16, 2022. In Abstracts of the 2022 American Physician Scientist Association (APSA) Northeast Regional Conference (NERC), In Int J Med Students Vol 10 (Suppl 1). <https://doi.org/10.5195/ijms.2022.1359>
2. Wan, Z., Fu, Y., Schneider, J. Using citation redistribution to estimate unbiased expected citation count from a biased citation network. Poster presented at the iSchool Research Showcase, University of Illinois at Urbana Champaign, October 27, 2021. <http://hdl.handle.net/2142/112794>

Awards and Grants

2022	Journal of the Association for Information Science and Technology (JASIST) top reviewers for 2021
2022	Center for Computational Analysis of Social and Organizational Systems (CASOS) Summer Institute & Center for Informed Democracy & Social - cybersecurity (IDeaS) Summer Institute Scholarship
2021	The Web Conference 2021 Student Scholarship
2011	R.C. Fuson <i>fellowship</i> , University of Illinois
2010	Lester E. & Kathleen A. Coleman <i>Fellowship</i> , University of Illinois
2009	Robert Carr <i>fellowship</i> , University of Illinois
2008	Xueping Pan's scholarship, Nanjing University
2007	Peoples' Republic of China state scholarship, Nanjing University
2006	Peoples' Republic of China state scholarship, Nanjing University

Service

2023	Reviewer, American Medical Informatics Association Clinical Informatics
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- Conference
- 2022 Reviewer, Knowledge Organization
- 2022 Organizing committee, the 2nd workshop on Digital Infrastructures for Scholarly Content Objects (DISCO2022) at Joint Conference on Digital Libraries 2022 (JCDL2022) (cancelled)
- 2021 Reviewer, Journal of the Association for Information Science and Technology
- 2021 Organizing committee and reviewer, the 1st workshop on Digital Infrastructures for Scholarly Content Objects (DISCO2021) at Joint Conference on Digital Libraries 2021 (JCDL2021)