

Yuanxi Fu

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Education

- 2021-current **Ph.D. Information Science**
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 –
05/2019

Director of research and analysis, Beijing Sirithink Technology, China

- 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 –
current

Founder, Explainable AI study group, UIUC iSchool. Teach students explainable AI techniques

03/2020 –
current

Certified instructor with The Carpentries. Teach programming and data science skills to students, researchers, and professionals from UIUC and other organizations.

08/2014 –
12/2014

Teaching assistant, Statistical Mechanics, University of Illinois at Urbana-Champaign

08/2009 –
12/2009

Teaching assistant, Physical Chemistry, University of Illinois at Urbana-Champaign

01/2009 –
05/2009

Teaching assistant, Physical Chemistry Lab, University of Illinois at Urbana-Champaign

08/2008 –
12/2008

Teaching assistant, General Chemistry Lab, University of Illinois at Urbana-Champaign

Mentoring Experience

08/2022 –
12/2022

Mentor, MS student independent study. Research project: Designing the WhoFundedIt database

01/2022 –
05/2022

Mentor, MS student independent study. Research project: Computable bibliography

10/2021 –
current

Mentor, graduate hourly research assistant. Research project: NetworkX programming

08/2021 –
12/2021

Mentor, MS student independent study. Research project: Computable bibliography

06/2021 –
08/2021

Mentor of four undergraduate students, the American Physician Scientists Association's Virtual Summer Research Program (VSRP). Research project: Text mining pipeline for extracting methods keystone citations.

- 09/2020 – **Mentor, undergraduate independent study.** 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.

Publications (student mentees underlined)

1. **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>
2. Schneider, J., Woods, N. D., Proescholdt, R., **Fu, Y.,** & The RIRSRS Team. (2021). Reducing the inadvertent spread of retracted science: Shaping a research and implementation agenda. F1000Research, 10(211), 211. <https://doi.org/10.7490/f1000research.1118522.1>
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>
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/pra2.315>
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, July). The Reality of Research Synthesis: One Workflow and Two Case Studies. Luís Amaral Group, Northwestern University.
2. **Fu, Y.** (2021b, July). Using Citation Bias to Guide Better Sampling of Scientific Literature. 18th International Conference on Scientometrics & Informetrics (ISSI2021). https://youtu.be/tmej4_2PCUc
3. **Fu, Y.** (2021a, April). Finding Keystone Citations for Constructing Validity Chains among Research Papers. 1st International Workshop on Scientific Knowledge: Representation, Discovery, and Assessment (Sci-K 2021). <https://youtu.be/9PJ3-LbjNU0>

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	JASIST's top reviewers for 2021
2022	CASOS Summer Institute & IDEaS Summer Institute Scholarship
2021	The Web Conference 2021 Student Scholarship
2011	R.C. Fuson fellowship, University of Illinois
2010	Lester E. & Kathleen A. Coleman Fellowship, University of Illinois
2009	Robert Carr fellowship, 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

2022	Reviewer, Knowledge Organization
2022	Organizing committee, the 2 nd workshop on Digital Infrastructures for Scholarly Content Objects (DISCO2022) at JCDL2022 (cancelled)
2021	Reviewer, Journal of the Association for Information Science and

2021 Technology
Organizing committee and reviewer, the 1st workshop on Digital
Infrastructures for Scholarly Content Objects (DISCO2021) at JCDL2021