

Yuanxi Fu

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Education

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| 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 Interests

- Argumentation in science: Both theoretical and applicational (e.g., argument mining)
- The epistemic soundness of data driven approaches in scientific research
- Biomedical knowledge graph

Research Experience

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| 09/2019 –
Current | Graduate research assistant, University of Illinois at Urbana-Champaign, USA
Research focus: argumentation in science
Supervisor: Prof. Jodi Schneider |
| 09/2017 –
05/2019 | Consulting project leader, Beijing Guanghui-Licheng Pharmaceutical, China
- Lead consulting project that researched emerging medical devices and pharmaceuticals in oncology, stomatology and orthopedics area to assist client's strategic decisions.
- Lead 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.

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

Teaching Experience

06/2021 –
08/2021 **Mentor, the American Physician Scientists Association’s Virtual Summer Research Program (VSRP).** Research project: Text mining pipeline for extracting methods keystone citations.

09/2020 –
05/2021 **Mentor, undergraduate independent study.** Research project: Identifying potential bias in science using citation network structures.

03/2020 –
current **Certified instructor with The Carpentries.** Teaching 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, USA**
Supervisor: Prof. Martin Gruebele

08/2008 –
12/2009 **Teaching assistant, University of Illinois at Urbana-Champaign.** Courses taught include general chemistry laboratory, physical chemistry laboratory and physical chemistry. Supervisors: Prof. Yi Lu, Prof. Douglas McDonald

06/2011 –
07/2011 **Undergraduate summer research mentor.** Research project: 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.**, & Team, T. R. (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/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>

Presentations

1. Fu, Y. (2021, July). Using Citation Bias to Guide Better Sampling of Scientific Literature. of the 18th International Conference on Scientometrics & Informetrics (ISSI2021). <https://youtu.be/9PJ3-LbjNU0>
2. 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>

Awards and Grants

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

Academic Service

2021	Organizing committee, Digital Infrastructures for Scholarly Content Objects (DISCO2021) at JCDL2021
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