Yifan Qian

Research Assistant Professor Center for Science of Science and Innovation Kellogg School of Management Northwestern University, Evanston, IL, US

Updated: October 2025 Web: https://yifanqian.com/

Email: yifan.qian1@kellogg.northwestern.edu

Short Bio

I am currently a Research Assistant Professor at the Center for Science of Science and Innovation (CSSI), Kellogg School of Management at Northwestern University, United States. My research is broadly concerned with the science of science and combines theories and methods from network science, machine learning, data science, and sociology. My work aims to measure and predict innovations in research institutions with large-scale data sets on scientific funding, publications, and their broad impacts on various facets of human society.

Research Interests

Science of Science, Innovation, Network Science, Computational Social Science, Machine Learning

Academic Positions

Northwestern University

Evanston, IL, US

Research Assistant Professor, Kellogg School of Management

Nov. 2023 - Present

Mentors: Prof. Dashun Wang & Prof. Benjamin F. Jones

Northwestern University

Evanston, IL, US

Postdoc, Kellogg School of Management

Nov. 2021 - Oct. 2023

Mentors: Prof. Dashun Wang & Prof. Benjamin F. Jones

Imperial College London

London, UK

Visiting scholar, Department of Mathematics

Sep. 2017 - Aug. 2021

Mentors: Prof. Mauricio Barahona & Dr. Paul Expert

Education

Queen Mary University of London (QMUL)

London, UK

PhD in Business and Management

Sep. 2017 - Nov. 2021

Supervisors: Prof. Pietro Panzarasa & Prof. Mauricio Barahona

Thesis title: Network science, Big data analytics, and Deep learning: An Interdisciplinary Approach

to the Study of Citation, Social and Collaboration Networks

Thesis examiners: Prof. Renaud Lambiotte & Dr. Guven Demirel

Beihang University

Beijing, China

MSc. in Computer Science

Sep. 2014 - Mar. 2017

Supervisor: Prof. Wenge Rong

École Centrale de Nantes

MSc. in Engineering

Nantes, France Sep. 2013 - Aug. 2015

1 of 5

BSc. in Information and Computing Sciences

Beijing, China Sep. 2010 - Aug. 2014

Publications

†: equal contribution

- Erzhuo Shao, Yifang Wang[†], Yifan Qian[†], Zhenyu Pan, Han Liu, Dashun Wang. SciSciGPT: Advancing Human-AI Collaboration in the Science of Science. Nature Computational Science (2025). 10.1038/s43588-025-00906-6
- 2. Giorgio Tripodi[†], Xiang Zheng[†], **Yifan Qian**[†], Dakota Murray, Benjamin F. Jones, Chaoqun Ni, Dashun Wang. Tenure and Research Trajectories. *Proceedings of the National Academy of Sciences (PNAS)* (2025). 10.1073/pnas.2500322122
- 3. Yifang Wang, **Yifan Qian**, Xiaoyu Qi, Nan Cao, and Dashun Wang. InnovationInsights: A Visual Analytics Approach for Understanding the Dual Frontiers between Science and Technology. *IEEE Transactions on Visualization and Computer Graphics* (2023).10.1109/TVCG.2023.3327387 [Best Paper Honorable Mentions Award]
- 4. **Yifan Qian**, Paul Expert, Pietro Panzarasa, and Mauricio Barahona. Geometric Graphs from Data to Aid Classification Tasks with Graph Convolutional Networks. *Patterns* 2, no. 4 (2021): 100237. 10.1016/j.patter.2021.100237
- Yifan Qian, Paul Expert, Tom Rieu, Pietro Panzarasa, and Mauricio Barahona. Quantifying the Alignment of Graph and Features in Deep Learning. *IEEE Transactions on Neural Networks* and *Learning Systems* 33, no. 4 (2021): 1663-1672. 10.1109/TNNLS.2020.3043196
- Yifan Qian, Wenge Rong Nan Jiang, Jie Tang, and Zhang Xiong. Citation Regression Analysis
 of Computer Science Publications in Different Ranking Categories and Subfields. Scientometrics
 110, no. 3 (2017): 1351-1374. 10.1007/s11192-016-2235-4

Selected Working Papers

†: equal contribution

- 1. **Yifan Qian**, Jian Gao, Yian Yin, Peter Schiffer, Dashun Wang. Diversification and Convergence in Research Outputs by US Universities, 2025. [Submitted]
- 2. Yifang Wang, **Yifan Qian**, Xiaoyu Qi, Yian Yin, Shengqi Dang, Ziqing Qian, Benjamin F. Jones, Nan Cao, Dashun Wang. Funding the Frontier: Visualizing the Broad Impact of Science and Science Funding, 2025. arXiv:2509.16323 [Submitted]
- 3. **Yifan Qian**, Binglu Wang, Zihang Lin, Sirag Erkol, Jian Gao, Alicia Loffler, Benjamin F. Jones, Dashun Wang. Untapped Innovation Potential of University Research, 2025 [Part of the work is covered by *Nature*.]

Patents

1. Dashun Wang, Benjamin F. Jones, **Yifan Qian**. Systems and Methods to Identify Commercialization and Partnership Potential for Research Institutions. WO2024097988A1, WIPO (PCT). (2024)

Grants

- 1. Senior Personnel. "Measuring, Understanding, Predicting, and Accelerating Technology Outcomes", NSF TIP APTO, PI: Dashun Wang, \$20,000,000, (2024-2029) (Senior Personnel)
- 2. Key Personnel. "Breakthroughs in science: The role of funding approaches and investment balance across Stokes' quadrants", Wellcome LEAP, PI: Dashun Wang, \$360,000, (2023-2024) (Proposal lead writer)
- 3. Key Personnel. "Understand early-career signals for exceptional people", Schmidt Futures, PI: Dashun Wang, \$350,000, (2023-2024) (Proposal lead writer)
- 4. Key Personnel. "Northwestern Innovation Index Phase II", Future Wanxiang Foundation, PI: Dashun Wang, \$300,000, (2022-2023) (Proposal lead writer)
- 5. PI. "Scientists in computational social science: Demographics and interactions", Summer Institutes in Computational Social Science, \$4,000, (2021)

Selected Presentations

1.	NBER Summer Institute 2025 Science of Sciecne Funding. (Talk, Cambridge, MA, US)	2025/07
2.	ICSSI 2024. (Talk, National Academy of Sciences, Washington DC, US)	2024/07
3.	ICSSI 2023. (Poster, Northwestern University, US)	2023/06
4.	NetSci 2022. (Talk, Shanghai, China)	2022/07
5.	ICSSI 2022. (Poster, National Academy of Sciences, Washington DC, US)	2022/06
6.	IC2S2 2021. (Talk, ETH Zurich, Switzerland)	2021/07
7.	NetSci 2021. (Talk, Indiana University Network Science Institute, US)	2021/07
8.	NetSci 2020. (Talk&Poster, Rome, Italy)	2020/09
9.	IC2S2 2020. (Poster, MIT, US)	2020/07
10.	SBM PhD Symposium. (Talk, QMUL, UK)	2019/10
11.	IC2S2 2019. (Talk&Poster, University of Amsterdam, The Netherlands)	2019/07
12.	Data Natives 2019. (Talk, City, University of London, UK)	2019/03
13.	2nd UK Network Science Workshop. (Talk, University of Greenwich, UK)	2018/10
14.	SBM PhD Symposium. (Talk, QMUL, UK)	2018/10
15.	IC2S2 2018. (Poster, Northwestern University, US)	2018/07
16.	NetSci 2018 Satellite: Machine Learning in Network Science. (Talk, Paris, France)	2018/06

17. NetSci 2018. (Poster, Paris, France)

2018/06

NetSci: International School and Conference on Network Science. IC2S2: International Conference on Computational Social Science.

ICSSI: International Conference on the Science of Science and Innovation.

NBER: National Bureau of Economic Research.

Selected Awards

• IEEE VIS 2023, Best Paper Honorable Mentions Award	2023
• Beihang University Outstanding Graduate Dissertation Award	2017
• Beihang University Outstanding Graduate	2017
• First-class Graduate Scholarship from Beihang University	2014-2015
• Scholarship from École Centrale de Nantes	2014

Teaching

Northwestern	University.	Evanston.	US

Teaching Associate

• Winning with Networks (MORS-457-0)

2024

• Social Dynamics & Networks (MORSX-945-0)

2022

Queen Mary University of London, London, UK

Teaching Associate

• Innovation and Entrepreneurship (Undergraduate, BUS300)

2021

• Quantitative Analysis for Business (Undergraduate, BUS135)

2021

• Social Network Analysis (Undergraduate, BUS346)

2019, 2020

Academic Service

Reviewer:

- General Audience: Proceedings of the National Academy of Sciences (PNAS), Nature Medicine, Nature Communications, Scientific Reports
- Physics and Mathematics: Advances in Complex Systems; Applied Network Science; European Physical Journal B
- Social Sciences: Quarterly Journal of Economics

Membership:

- The International Society for Computational Social Science
- Society of Young Network Scientists
- The Network Science Society

Media Coverage

- 1. Will Your Study Change the World? This AI Tool Predicts the Impact of Your Research Nature (October 01, 2025)
- 2. Is Gaining Tenure Just a Ticket to Slack Off? A Large-Scale Study of Over 10,000 Academics Tells a Different Story. *Tencent News* (September 02, 2025)
- 3. Tenured Scientists in the US Slow Down and Produce Less Impactful Work, Finds Study. *Physics World* (August 23, 2025)
- 4. Time Well Spent: Productivity with Purpose in Research. Spectroscopy (August 13, 2025)
- 5. The Impact Of Faculty Tenure On Research Output Explored In New Study. Forbes (July 28, 2025)
- 6. Study: Tenure Doesn't Slow Average Research Output. Inside Higher Ed (July 28, 2025)
- 7. Tenure Disrupts Research, Publishing Patterns Study. University World News (July 26, 2025)
- 8. Is Tenure a Golden Age for Research? KelloggInsight (July 24, 2025)
- 9. How Getting Tenure Changes Researchers' Publication Habits and Citations? *Nature* (July 22, 2025)

Computer Skills

- Python, Matlab, R, Latex, Bash/shell scripting, HTML, SQL.
- Operating systems: MacOS, Linux, Windows.

Languages

English (Proficient), French (Professional), Chinese (Native)