

# Yifan Qian

Postdoctoral Scholar

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## Short Bio

I am currently a postdoctoral fellow 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 computational social science and combines theories and methods from network science, sociology, machine learning and data science. The general goal of my work is to better understand the structure, functioning and consequences of complex large-scale networks across a number of empirical domains including citation networks, social networks and collaboration networks.

## Research Interests

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

## Academic Positions

- **Northwestern University** Evanston, IL, US  
*Postdoc at CSSI, Kellogg School of Management* Nov. 2021 - Present  
Mentor: Prof. Dashun Wang

## 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** Nantes, France  
*MSc. in Engineering* Sep. 2013 - Aug. 2015
- **Beihang University** Beijing, China  
*BSc. in Information and Computing Sciences* Sep. 2010 - Aug. 2014

## Journal Publications

1. **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
2. **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* (2021). 10.1109/TNNLS.2020.3043196
3. **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

1. **Yifan Qian**, Luca Verginer, Xiancheng Li, Massimo Riccaboni, and Pietro Panzarasa. Network foundations of scientific impact and innovation of cities.
2. **Yifan Qian** and Pietro Panzarasa. Intra- and inter-brokerage in social networks.
3. Xiancheng Li, **Yifan Qian**, Mauricio Barahona, and Pietro Panzarasa. Publishing the first patent boosts scientists' performance.
4. Hongwei Peng, Xiancheng Li, **Yifan Qian**, and Pietro Panzarasa. The relationship between scientists' early-career interdisciplinarity and long-term success.

### Presentations

NetSci: International School and Conference on Network Science.

IC2S2: International Conference on Computational Social Science.

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|---------------------------------------------------------------------------------------|---------|
| 1. IC2S2 2021. (Talk, ETH Zurich, Switzerland)                                        | 2021/07 |
| 2. NetSci 2021. (Talk, Indiana University Network Science Institute, US)              | 2021/07 |
| 3. NetSci 2020. (Talk&Poster, Rome, Italy)                                            | 2020/09 |
| 4. IC2S2 2020. (Poster, MIT, US)                                                      | 2020/07 |
| 5. SBM PhD Symposium. (Talk, QMUL, UK)                                                | 2019/10 |
| 6. IC2S2 2019. (Talk&Poster, University of Amsterdam, The Netherlands)                | 2019/07 |
| 7. Data Natives 2019. (Talk, City, University of London, UK)                          | 2019/03 |
| 8. 2nd UK Network Science Workshop. (Talk, University of Greenwich, UK)               | 2018/10 |
| 9. SBM PhD Symposium. (Talk, QMUL, UK)                                                | 2018/10 |
| 10. IC2S2 2018. (Poster, Northwestern University, US)                                 | 2018/07 |
| 11. PhD 9-Month Progression. (Talk, QMUL, UK)                                         | 2018/06 |
| 12. NetSci 2018 Satellite: Machine Learning in Network Science. (Talk, Paris, France) | 2018/06 |

## Grants

1. Summer Institutes in Computational Social Science (SICSS) Grant, **\$2,428** *Principal Investigator*  
Scientists in computational social science: Demographics and interactions 2021
2. SICSS Chicago Grant, **\$1,068** *Principal Investigator*  
Scientists in computational social science: Demographics and interactions 2021

## Selected Awards

- Queen Mary - China Scholarship Council Co-funded Scholarship 2017–2021
- 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

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:

- *Physics and Mathematics*: Advances in Complex Systems (2021); Applied Network Science (2021); European Physical Journal B (2021)
- *General Audience*: Scientific Reports (2022)

### Membership:

- Society of Young Network Scientists
- The Network Science Society

## Computer Skills

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

## Languages

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