

EDUCATION

Kellogg School of Management, Northwestern University
Visiting Predoctoral Fellow, Center for Science of Science & Innovation (CSSI)

Evanston, IL, USA
Aug 2021 - Jul 2022

Fudan University
B.S. in Computer Science, **Honor Class**

Shanghai, China
2018 - 2023 (expected)

- **Overall GPA: 3.64/4.00**
- **Course Highlights (Grade):** Data Structure (A), Set Theory and Graph Theory (A), Algebra Structure and Mathematical Logic (A), Programming (A), Digital Logic and Components Design (A), Computer Networks (A), Computer Vision (A), Data Mining (A), Economy and Society (A), Applied Ethics (A)

RESEARCH INTERESTS

- Currently, my research interests include
 - **Computational Social Science**, especially trying to study human behavior on social networks, leveraging big data and machine learning models to explain and predict social phenomena in an interdisciplinary manner.
 - **Science of Science**, in particular, aiming to attain a deeper understanding of the relationships between scientific publications and other socioeconomic institutions from upstream funding sources to downstream public uses of science, such as patented inventions and clinical trials.
 - **Innovation**, particularly attempting to depict and predict the knowledge transfer from prior scientific literature to future patented inventions of the dual frontier, given that the time lag between scientific literature and patented inventions in the citation network is exacerbating.
- I am actively seeking an opportunity to be a PhD student starting Fall 2023, focusing on Computational Social Science, Science of Science, and Innovation.

PUBLICATIONS & WORKING PAPERS

- [1] **Zihang Lin**, Yian Yin, Lu Liu, and Dashun Wang, “Sciscinet: A large-scale open data lake for the science of science research”, *Working Paper (Scientific Data)*, under review), 2022.
- [2] **Zihang Lin**, Yuwei Zhang, Qingyuan Gong, Yang Chen, Atte Oksanen, and Aaron Yi Ding, “Structural hole theory in social network analysis: A review”, *IEEE Transactions on Computational Social Systems*, vol. 9, no. 3, pp. 724–739, 2022.

RESEARCH EXPERIENCE

Kellogg School of Management, Northwestern University
Visiting Predoctoral Fellow / Center for Science of Science & Innovation (CSSI)

Evanston, IL, USA
Aug 2021 - Jul 2022

- Built a large-scale open data lake for the science of science research.
- Researched the dual frontier: How prior scientific knowledge predicts tomorrow’s technological breakthroughs.
- Served one Kellogg MBA class as a member of the genius bar.
- Advisers: Prof. Yian Yin and Prof. Dashun Wang

Shanghai Key Laboratory of Intelligent Information Processing
Research Assistant / Mobile Systems and Networking (MSN) Group, Fudan University

Shanghai, China
Jun 2019 - Jul 2021

- Provided a review of the application of structural hole theory in social network analysis.
- Made key contributions to the development of EasyGraph, a Python graph processing library.
- Analyzed diverse patterns of academic collaborations between scholars in disparate network positions.
- Advisers: Prof. Qingyuan Gong and Prof. Yang Chen

PROJECT EXPERIENCE & CONFERENCE ACTIVITIES

- Attended the inaugural International Conference on the Science of Science and Innovation (ICSSI) 2022 in the National Academy of Sciences, Washington, D.C., USA. Jun 2022
- Attended weekly Northwestern Institute on Complex Systems (NICO) Seminar, organized by Luís A. Nunes Amaral and Brian Uzzi. 2021 - 2022
- Enrolled as a participant in a PhD course, Technology and Innovation, in the Kellogg School of Management, Northwestern University, delivered by Dashun Wang and Benjamin F. Jones. Winter 2022
- Attended the Science of Science Summer School (S4), mainly organized by Daniel Acuña and Stephen V. David and hosted by Syracuse University, and made a virtual group project presentation. Aug 2021
- Served as the sub-reviewer of several conferences, including The Web Conf 2022, AAAI 2022, and IJCAI 2021.
- Attended the 15th ChineseCSCW in Shenzhen, China. Nov 2020
- Attended the 2019 IEEE International Conference on Data Mining (ICDM) in Beijing, China. Nov 2019

SCHOLARSHIPS AND AWARDS

- Visiting Predoctoral Fellowship, Kellogg School of Management, Northwestern University 2021-2022
- Second Prize, Scholarship for Students in Honor Class, Fudan University 2020
- Third Prize, Scholarship for Outstanding Students, Fudan University 2019
- Bronze Medal, National Olympiad in Informatics, National Finals Jul 2017
- Bronze Medal, Asia Pacific Informatics Olympiad May 2017
- First Prize, National Olympiad in Informatics (Provincial) 2017

SKILLS

- **Programming:** Python, C, C++, Go, ARM Assembly Language
- **Frameworks:** PyTorch, TensorFlow, MySQL, Apache Spark
- **Languages:** English (Fluent), Chinese (Native), Hokkien (Native)

REFERENCES

- Prof. Yian Yin
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