

Yining Feng

Environmental demography • AI and big data analysis • Computational and spatial analysis

Postdoctoral Fellow

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EDUCATION

Ph.D., Rural Sociology and Demography (dual-title), The Pennsylvania State University, 2024

M.S., Engineering management, Wuhan University (WHU), 2019

B.S., Engineering management, Huazhong Agricultural University, 2016

RESEARCH INTERESTS

My research examines how environmental stressors shape population and community well-being through the lens of big data, spatial analysis, and computational modeling.

- Environmental stressors and their impacts on human mobility and well-being
- Spatial inequality and accessibility using large-scale mobility and computational data
- AI and LLM-based approaches for data integration and analysis

ACADEMIC APPOINTMENTS

Postdoctoral Scholar, Geography, Indiana University, September 2025 to Present:

- Integrate qualitative and quantitative data to examine the impacts of climate change on community resilience, population health, and well-being in Arctic communities;
- Lead research and write a book on AI for social data analysis, focusing on the use of large language models (LLMs) for diverse data processing, analysis, and validation.

Postdoctoral Scholar, Computational and Spatial Analysis Core, Social Science Research Institute, Population Research Institute, Penn State, January 2025 to August 2025:

- Apply spatial and computational methods to large-scale datasets to examine the impacts of natural disasters on human mobility and decision-making.

Graduate Research Assistant, Computational and Spatial Analysis Core, Population Research Institute, Penn State, August 2019–December 2024:

- Analyze national-scale address data to model disaster-induced displacement, applying computational and spatial methods to identify environmental drivers of mobility;
- Develop geolocated Twitter data workflows for mobility and topic analysis, integrating spatial analysis and text modeling to examine movements and public perceptions;
- Use mobile phone point-of-interest data to study spatial accessibility of food pantry site visits in Alaska, applying spatial and statistical modeling to identify inequalities.

Graduate Research Assistant, School of Civil Engineering, WHU, August 2016–May 2019:

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- Focused on the Three Gorges Project’s social conflicts and project-induced migrant challenges, examining conflict mechanisms and understand migrants’ poverty and integration dynamics. Data were collected from field surveys.

RESEARCH GRANTS

1. **Pittsburg Supercomputing Center (PSC) ACCESS program.** “Investigating environmental migration and community resilience using machine learning and high-resolution data integration.” 7/1/2026 – 7/31/2027. **Co-PI** with Guangqing Chi (PI). Allocated 750,000 ACCESS computing credits.
2. **Penn State Center for Social Data Analytics (C-SoDA) Accelerator.** “Post-Hurricane Katrina Return Migration Decision-Making: A Big Data Analytical Approach with Infutor Data.” 1/1/2024–12/31/2024. **PI.** \$4,000. (Completed)

PENDING RESEARCH GRANTS

USDA NIFA = U.S. Department of Agriculture’s National Institute of Food and Agriculture

1. **USDA NIFA.** DSFAS: Community-grounded AI for Rural Food Systems: Infusing Local Knowledge into Multi-sourced and Multi-modal Data. **Proposal Writer and Key Personnel** (PI: Guangqing Chi). Total Amount: \$649,981. Project Period: 07/2026 – 06/2029
2. **USDA NIFA.** Gardens as Emerging Critical Infrastructure for Enhancing Rural Prosperity and Well-being. **Key Personnel** (PI: Guangqing Chi). Total Amount: \$648,708. Project Period: 07/2026 – 06/2029

BOOK

1. **Feng, Yining** and Guangqing Chi. AI for the Social Sciences: A Primer. *Springer*. 110 pages. [*under contract*, to be released in late 2026]

MANUSCRIPTS IN REVIEW / SUBMISSION

1. Chi, G., **Feng, Y.**, Gavenus, E. (2026). Building a responsible AI framework for community-based research. *Nature Machine Intelligence* [*under review*]
2. **Feng, Y.**, Chi, G. (2026). Disaster Migration: Evidence from meta-analysis of the literature. [*In revision, to be submitted to Social Forces*]
3. **Feng, Y.**, Chi, G. (2026). The Long Way Back: Displacement Paths and the Uneven Pace of Post-Disaster Return. [*In revision, to be submitted to Annals of AAG*]
4. **Feng, Y.**, Randell, H., Chi, G., Wang, Y. (2026). Social exclusion and perceived discrimination in the Three Gorges resettlement communities. [*in submission to Social Problems*]

JOURNAL PUBLICATIONS

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1. Wang Y., **Feng Y.**[†], Han Q., Zuo J., & Rameezdeen R.. (2020). Perceived discrimination of displaced people in development-induced displacement and resettlement: The role of integration. *Cities*, 101, 102692. <https://doi.org/10.1016/j.cities.2020.102692>
 2. Wang Y., **Feng Y.**[†], Zuo J., & Rameezdeen R.. (2019). From “Traditional” to “Low carbon” urban land use: Evaluation and obstacle analysis. *Sustainable Cities and Society*, 51, 101722. <https://doi.org/10.1016/j.scs.2019.101722>.
 3. Wang Y., **Feng Y.** (2018). A review of studies on poverty and governance of involuntary resettlement for major construction projects. *Journal of Engineering Management*. 2018, 32(02):103-107. DOI:10.13991/j.cnki.jem.2018.02.019.
 4. Zhang. G., **Feng Y.** (2015). The Application of External Wall Insulation Technology in Rural House Building. *Shanxi Agriculture Economy*. 2015(02): 121-122.

[†] Papers 1 and 2: Led research design and original manuscript writing. First author is my master’s advisor.

CONFERENCE PRESENTATIONS

1. **Feng, Y.**, Chi, G. 2025. When Do They Return Home? A survival analysis of return timing for natural disaster displaced migrants. *Population Association of America*. Washington, DC, April 10 - 13, 2025. [Oral]
2. **Feng, Y.**, Chi, G. 2024. Return home or relocate nearby? Displaced individuals’ post - hurricane settlement patterns in coastal communities. *Rural Sociology Society*. Madison, WI, July 24 - 28, 2024. [Oral]
3. **Feng, Y.**, Chi, G. 2023. Natural disasters and migration responses: evidence from the Infutor data. *Rural Sociology Society*. Burlington, VT, August 2 - 6, 2023. [Oral]
4. **Feng, Y.**, Chi, G. 2023. Return migration and newcomers in Gulf of Mexico after Hurricane Katrina: Evidence from the Infutor data. *Population Association of America*. New Orleans, LA, April 12 - 15, 2023. [Oral]
5. **Feng, Y.**, Chi, G. 2021. Displacement, migration, and social vulnerability: A meta - analysis of natural disaster studies. *Rural Sociology Society*. Online. July 14 - 17, 2021. [Oral]
6. **Feng, Y.**, Chi, G. 2022. Disaster Migration: a meta-analysis. Population Association of America. Atlanta, GA. April 4-9, 2022. [Poster]
7. **Feng, Y.**, Randell, H., Chi, G., Wang, Y. 2021. Social Exclusion and Perceived Discrimination of Project-Induced Migrants: A Gender Perspective. Population Association of America. Online. May 5-8, 2021. [Poster]
8. Wang Y., **Feng Y.**, Ning Y. (2017). Research on driving mechanism of urban involuntary migration poverty: Evidence from the Three Gorges Reservoir. *Proceedings of the International Conference on Environment & Sustainable Development*. ISBN: 978-1-943579-08-2 Kuala Lumpur-Malaysia. 10-12, August 2017. Paper ID: KLM712. [Oral]

AWARDS

2024	Demography Program Research Assistantship Award (Fall 2024), PSU
2024	Travel grant from National Center for Ecological Analysis and Synthesis
2024	Travel grant from Polar Geospatial Center (PGC), University of Minnesota
2024	Dennis and Jimmie Findley Educational Enhancement Endowment, PSU
2019	Excellent Postgraduate, WHU
2018	Postgraduate Academic Scholarship, WHU
2016	Graduate with Honors; Enterprise Scholarship, HZAU
2013	China National Scholarship, China Scholarship Council
2012	China National Encouragement Scholarship, China Scholarship Council

SERVICE ACTIVITIES

Journal Reviewer: Poverty & Public Policy, PLOS One, Spatial Demography

TEACHING and MENTORING

- Guest Lecture:
 - CED 410: Population and Environment. The Pennsylvania State University. *Lectures on Disaster migration and recovery*. Spring 2023; Spring 2025
- Undergraduate mentoring:
 - Sarah Crider, Undergraduate in Computational Linguistics, IU Hutton Honors College, 2026–
 - Melissa Kim, Undergraduate, PSU Schreyer Honors College, 2025

PROFESSIONAL MEMBERSHIPS

Population Association of America
Rural Sociology Society

REFERENCES

- Guangqing Chi (gchi@psu.edu)
Provost Professor, Department of Geography, Indiana University
- Junjun Yin (j.yin@email.gwu.edu)
Assistant Professor of Data Science, Gorge Washington University
- Erika Gavenus (egavenus@iu.edu)
Postdoctoral Fellow, Department of Geography, Indiana University

OTHER DEVELOPMENT

Certificate: Associate Constructor of Municipal Engineering