# Enqi Zhang

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## Education

**Nanjing University (NJU):** *GPA (89/100)* 2023.09-2026.06
*MS. in Human Geography* **Nanjing, China**

- Key courses: Spatial Data Analysis, The Earth's Surface Environment, Frontiers in Economic Geography

**University of Freiburg (Uni Freiburg)** 2023.10-2024.03
*Exchange Program* **Freiburg, German**

**Peking University (PKU):** *GPA (3.77/4.00)* 2021.09-2023.06
*Minor in Economics* **Beijing, China**

- Key courses: Applied Micro-econometrics, Development Economics, Intermediate Micro/Macro Economics

**China Agriculture University (CAU):** *GPA (3.87/4.00)* 2019.09-2023.06
*BA. in Rural Development Studies* **Beijing, China**

- Key courses: Environment and Development, Participatory Rural Appraisal, Social Research Methods

## Research Interests

Rural development, food security, nutrition, climate change, spatial economics, Africa.

## Skills and Awards

Language: Chinese (Native), English (Fluent, IELTS 7.5), German (A1.1)
Computer: Office, Python, Stata, ArcGIS
Awards: First-Class Scholarship (Top 10%), Outstanding Student Award, Anli Fang Scholarship (Top 10%)

## Research Experience

**Paving the Road to Food Access: Evidence from Oil Price Shocks in Sub-Saharan Africa** 2024.06-2025.11
*Founded by International Growth Center (online)* **Nanjing, China**

- Estimated the impacts of rising transportation costs on African local maize prices using dynamic DID and 2SLS/IV models in Stata. Additional analysis examines heterogeneity by land suitability and drought intensity.
- Applied cost-allocation model in ArcGIS to map market catchments (land assigned to each market) from 5 raster datasets: roads, rivers/water bodies, land cover, borders, and elevation.
- Constructed a network connecting mine sites and ports, and measured the shortest distance from markets to the network using ArcGIS and Python, which is employed as an instrument variable of transportation cost.

**The Sensitivity of Rain-fed Agricultural Crop Yields to CO2 Fertilization in East Africa** 2024.12-2025.03
*Founded by China National Natural Science Foundation* **Nanjing, China**

- Applied the C-FIX model to stimulate $CO_2$ fertilization effect using cell data at 0.01° × 0.01° resolution.
- Analyzed the relationship between $CO_2$ fertilization and crop yields using Pearson correlation, and estimated the sensitivity of $CO_2$ fertilization to crop yield via multivariate linear regression in Stata.
- Employed the geographical detector model to identify drivers of $CO_2$ fertilization, focusing on temperature, vapor-pressure deficit, soil moisture, and atmospheric $CO_2$.

**Social Interaction Effect of Small Farmers' Agricultural Production Technical Efficiency** 2022.06-2023.08
*Founded by China National Natural Science Foundation* **Beijing, China**

- Developed a theoretical framework for social interaction effects grounded in social network, embeddedness, and structural hole theories.
- Constructed a network adjacency matrix from gift-exchange records for 203 rural households in a Gansu village.
- Applied the Moran index to examine the spatial autocorrelation of agriculture technical efficiency, and employed spatial auto-correlation model to estimate the social interaction effects.

## Work Experience

**UNICEF Zimbabwe Country Office** 2025.04-2025.11

*Intern in Nutrition and Early Childhood Development* **Harare, Zimbabwe**

- Supervised national household surveys in the Multiple Indicator Cluster Surveys (MICS) and Zimbabwe Livelihoods Assessment (ZimLAC) program cooperating with ministries of health and statistics, focusing on anthropometry of children under 5 years old.
- Conducted field visits and semi-structured interviews with key stakeholders at district clinics and schools in Goromonzi on child wasting and nutrition gardens.
- Designed and coordinated handout of "Positive Parenting" surveys to 112 employees at Prosperous Lithium Zimbabwe (a mining company) to assess childcare practices and training needs.
- Consolidated an interactive Positive Parenting toolkit covering nutrition, social protection, emotional support, and discipline, and coordinated the review process with relevant ministries.

**Center of African Studies, Nanjing University (CASNJU)** 2024.04-2024.07

*Conference Assistant in "Agricultural and Rural Development in Zambia"* **Nanjing, China**

- Collected literature on agricultural and rural development in Zambia, including land policies, agriculture industries, food trade, food security and nutrition.
- Analyzed the product structure and spatiotemporal dynamics of Zambia's food trade using UN Comtrade data (2000-2023), and visualize results with bar charts and Sankey diagrams.
- Translated the Vice President of Nanjing University's speech during the conference with University of Zambia.

## Publications and Working Papers

- ***Publications*** | Zhu, W., Zhang, Z., Zhang, E., & Xu, H. (2025). The sensitivity of rainfed agricultural crop yields to CO2 fertilization and its driving mechanisms in East Africa. Environmental Research, 272, 121164. ***(IF=7.7 Accepted)***
- ***Publications*** | Pang, H., Chen, Q., Zhang, E. (2024). Social interaction effect of small farmers' agricultural production technical efficiency -- Based on an investigation of 203 farmers in Gansu province. Chinese Journal of Agricultural Resources and Regional Planning, 45(06), 180-189. ***(IF=3.4 Accepted by a Chinese journal)***
- ***Working Paper*** | Zhang, E., Peng, C. (2025). Paving the Road to Food Access: Evidence from Oil Price Shocks in Sub-Sahara Africa. ***(Planned to submit to the Households in Conflict Network (HiCN) and the Social Conflict and Political Economy (SCoPE) Workshop in 2026)***