# KAI XIE

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### **Education**

#### Ph.D. in Economics, Southwestern University of Finance and Economics

**Sep 2019 - Dec 2024 (Expected)** 

• Advisor: Prof. Li Gan

Visiting Ph.D. Student, The Chinese University of Hong Kong, Shenzhen

Feb 2024 - Aug 2024

• Advisor: Prof. Ran Tao

### B.A. in Economics, Henan University

• Outstanding Graduate Award

Sep 2015 - June 2019

### **Fields**

• Human Capital, Labor Economics, Household Economics, Development Economics

### References

#### Prof. Li Gan

Texas A&M University / Southwestern University of Finance and Economics

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### Prof. Jun Ouyang

Southwestern University of Finance and Economics

Email: ouyangjun@swufe.edu.cn

## Prof. Ran Tao

The Chinese University of Hong Kong, Shenzhen

Email: taoran@cuhk.edu.cn

#### Job Market Paper

### **Hukou Registration System and STEM Talents Mismatch**

- Economic Research Journal (In Chinese), Revise & Resubmit
- STEM talents are crucial for developing new productive forces and play a key role in China's strategies to become a manufacturing powerhouse, a talent-rich nation, and an innovation-driven economy. Enhancing the effective utilization of STEM talents is essential for addressing their shortage in China. This paper constructs an analytical framework incorporating the hukou registration system and the alignment of majors and occupations based on a search-match model. Theoretical analysis indicates that if hukou benefits exceed the income loss from major-occupation misalignment, job seekers may accept mismatched positions to obtain hukou benefits. Empirical analysis using undergraduate employment data from a specific province (2020-2023) shows that a lowered hukou registration threshold significantly reduces the likelihood of undergraduate STEM graduates taking technical positions. This negative impact is more pronounced for STEM graduates with lower abilities, foundational academic disciplines, and those seeking employment within the established system. Moreover, the misalignment of STEM talents reduces the proportion of technical personnel in enterprises, especially in the manufacturing sector, leading to productivity losses and diminished urban innovation capacity. This research has significant policy implications for deepening hukou registration system reforms, reducing human capital mismatches, and increasing the effective supply of STEM talents.

#### **Publications**

- Xie, K., Qin, Z., Zhang, R.\*, & Gao, Y. (2023). Improvement of Transportation Infrastructure and Household Tourism Consumption: Evidence from "High-Speed Rail Counties". *Journal of Quantitative & Technological Economics (In Chinese)*, 40(12), 90-110.
- Xie, K., Qin, F., Dong, M., & Lu, X.\* (2024). The Impact of Digital Finance on the Survival and Growth of SMEs: Evidence from China. *Emerging Markets Finance and Trade*, 1-14.
- Qin, F., Xie, K., & Wang, J.\* (2023). The Entrepreneurial Effect of E-commerce Development: Evidence from Micro Household Data. *Finance & Trade Economics (In Chinese)*, 44(02), 154-168.
- Wang, Q., Xie, K., Qin, F.\*, & Niu, G. (2022). Market Accessibility and Rural Household Consumption: Evidence from the "Express Delivery to Rural Areas" Project. *Chinese Rural Economy (In Chinese)*, (12), 106-123.
- Huang, H., Xie, K., Qin, F.\*, & Ouyang, J. (2023). Research on the Supply and Demand Gap of Engineers for Industrial Matching. *Economic Theory and Business Management (In Chinese)*, 43(06), 42-59.
- Zhang, R., Liu, H., Xie, K., Xiao, W., & Bai, C.\* (2024). Toward a Low Carbon Path: Does E-commerce Reduce CO<sub>2</sub> Emissions? Evidence from China. *Journal of Environmental Management*, 351, 119805.
- Qin, F., Xie, K., & Gan, L. (2022). Supporting the Development of a Strong Manufacturing Country and Training More "Outstanding Engineers" Research Report on the Current Status of Engineer Talent in China. *Guangming Daily, Theoretical Edition (In Chinese)*, 12-08 (016).
- Wu, J., Qin, Z., & Xie, K. (2023). Research on the Rural Revitalization Development of the Chengdu-Chongqing Economic Circle. Southwest University of Finance and Economics Press, forthcoming.

# **Working Papers**

- First Author. Hukou Registration System and STEM Talents Mismatch. *Economic Research Journal (In Chinese)*, Revise & Resubmit.
- **First Author**. Place-Based Policy and Rural Entrepreneurship: Evidence from China's E-commerce Expansion, *China Economic Review*, Revise & Resubmit.
- Corresponding Author. Disappearing Bank Branches: Evidence from China Household Finance Survey.
  International Review of Economics & Finance, Revise & Resubmit.

# **Papers in Progress**

- AI, Shifts in Skill Demand, and STEM Talents Mismatch
- Special Economic Zones, Industry-Education Integration, and STEM Talents Allocation

# **Teaching Experience**

#### **Advanced Econometrics (Ph.D.)**

**Spring 2020** 

Teaching Assistant for Prof. Jingjing Ye, Southwestern University of Finance and Economics

## **Business Bank Management (Master's)**

**Fall 2022** 

• Teaching Assistant for Prof. Wen Chen, Southwestern University of Finance and Economics

# Stata Workshop

**Summer 2022** 

• Teaching Assistant for Prof. Yujun Lian, Sun Yat-sen University

# **Linear Spatial Econometrics (Ph.D.)**

**Fall 2023** 

Teaching Assistant for Prof. Lung-Fei Lee, Shanghai University of Finance and Economics/The Ohio State University

# **Professional Experience**

- Research Intern, Tencent Research Institute (Oct 2022 Oct 2023)
- Research Intern, SME Research Center, Alibaba Research Institute (Dec 2022 Jun 2023)
- Guest Researcher, New Village Research Center, Alibaba Research Institute (Mar 2022 Present)
- Research Assistant, China Household Finance Survey (CHFS), Southwestern University of Finance and Economics (Sept 2019 Present)

## **Seminars & Conferences**

- Presentation at the 7th China Labor Economists Forum Annual Meeting, Jul 2023
- Presentation at the 9th Camphor Economist Circle (CEC) Economics Annual Meeting, Jun 2023
- Presentation at the 23rd China Society of Development Economics Annual Meeting, Oct 2021
- Presentation at the 2021 Chinese Young Economists Society (YES) Annual Meeting, Aug 2021
- Presentation at the 5th China Labor Economists Forum Annual Meeting, Jun 2021
- Presentation at the 6th FinTech International Conference, Nov 2020
- Presentation at the 17th Chinese Finance Annual Meeting, Oct 2020

### **Academic Service**

- Referee for Journal of Quantitative & Technological Economics (In Chinese), Journal of China Economics (In Chinese)
- Provide classic paper interpretations for Camphor Economist Circle (CEC)

## **Research Grants**

- Ph.D. Student Project of the Sichuan Provincial Data Laboratory of Population and Development, SWUFE, 2024
- Ph.D. Student Project of the Fundamental Research Funds for the Central Universities, SWUFE, 2023
- Ph.D. Student Project of the Fundamental Research Funds for the Central Universities, SWUFE, 2022

#### **Fellowships & Awards**

- First Prize, 2023 Graduate Paper Competition, SWUFE, Dec 2023
- Liu Shibai Scholarship, SWUFE, Dec 2023
- National Scholarship, Ministry of Education / SWUFE, Oct 2023
- Excellent Paper Award, Institute of Education Economics, Peking University, Jul 2023
- Excellent Paper, Youth Cup Paper Competition, China Industrial Economics Society, Nov 2021
- First Prize, 3rd FinTech Youth Paper Competition, National Finance and Development Laboratory / Tencent Finance Research Institute, Oct 2021
- Outstanding Graduate Student Scholarship, SWUFE, Sep 2020

# Skills & Languages

- Software: Stata, Python, MATLAB, ArcGIS, SQL, LaTex, Zotero, Office
- Databases: Wind, CEIC, CSMAR, Census, CHFS, CFPS, CGGS, CMDS, CLDS
- Languages: Mandarin (native), English (IELTS 6.5, Reading 8.0)