Ziqi LIU, Ph.D. candidate

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EDUCATION

The University of Texas at Austin **expected 2023**

Ph.D. Candidate in Community and Regional Planning

The University of Texas at Austin **2021**

Master of Science in Statistics

The University of Illinois at Urbana-Champaign **2018**

Master of Urban Planning

Tongji University **2016**

Bachelor of Engineering in Urban Planning

RESEARCH EXPERIENCES

Publications

- Liu, Z., Li, Y., & Zhang, M. (2022). Transit network effects and multilevel access premiums: Evidence from the housing market of Shanghai, China. Cities, 129, 103841. https://doi.org/10.1016/j.cities.2022.103841
- Zhang, M., & Liu, Z. (2022). Analyze the Spatial Inequality Trends in the U.S. Megaregions (dot:63062). CM2-#74. https://rosap.ntl.bts.gov/view/dot/63062
- Liu, Z., Zhang, M., & Liu, L. (2021). Benchmark of the Trends of Spatial Inequality in World Megaregions. Sustainability, 13(11), 6456. https://doi.org/10.3390/su13116456
- Liu, Z. Wilson, B., & Zhu, W. (2021). Chapter 18: A Study on the Distribution of Migrants with Different Education Levels in Shanghai. In Li, W., Hu, L., & Cao, J. (Eds.). Human-Centered Urban Planning and Design in China: Volume II: Urban Design and Mobility. Springer International Publishing. https://doi.org/10.1007/978-3-030-83860-7_18

Presentations

- Colloquium talk at Mansueto Institute for Urban Innovation at the University of Chicago
- Conference presentation of *distributive economic impacts of the Bipartisan Infrastructure Law: A Case study of Texas with an application of the computable general equilibrium (CGE) model* at the 2023 Western Regional Science Association (WRSA) conference
- Conference presentation of *what factor contributes to regional (di)convergence: an exploratory analysis on US megaregions* at the 2021 Association of Collegiate Schools of Planning (ACSP) conference
- Conference presentation of *megaregion disparities: measurement and policy challenges in the presence of modifiable areal unit problem* at the 2020 ACSP conference
- Conference presentation of *benchmark the trends of spatial inequality in megaregions and explore the role of high-speed rail* at the 2019 ACSP conference
- Conference presentation of *spatial and sectoral economic impacts of HSR construction with private*

investments: a case study of the Dallas-Houston HSR line at the 2019 Norther America Regional Science Council (NARSC) conference

Graduate Research Assistant | CM2, USDOT Tier 1 University Transportation Center | UT Austin | June 2018 – Current

- **Project 1**. Regional Inequality and Convergence in the US Megaregions
  - Apply the spatial decompensation method in inequality measurements and improve the accuracy with longitudinal and cross-sectional comparison
  - Prove the spatial divergence in the US megaregions since the 2000s and identify industrial agglomeration
- **Project 2**. Distributional Economic Impact of Regional Transportation Infrastructure Investment
  - Apply the Multi-Regional Input-Output Model and the Computable General Equilibrium Model for the transportation investment in Texas Triangle
  - Capture the nuances between private and public investment and provide insights for public sectors on investing in transportation infrastructure and supporting local businesses
- **Project 3**. Urban Transit Services and Employment for Low-Income and Carless Women
  - Summarize the literature on the travel behavior and commuting features of women
  - Identify the barriers for women using urban public transit
  - Test the relationship between gender and commuting distance with transit as the major mode

TEACHING EXPERIENCES

Graduate Teaching Assistant | Department of Statistics | August 2020 – Current

- **Course 1. Elements of Statistics (SDS 320M)/Biostatistics (SDS 328M)**
  - Teach students R studio and regression modeling during the weekly lab sessions
  - Mentor their final projects on the research topic, variables, and relevant statistical tools
- **Course 2. Elementary Statistics (SDS 301)**
  - Hold class activities every two weeks and two-hour office hours every week
  - Assist students with data cleaning, statistical summaries, and data analysis in Excel

Guest Speaker | Community of Regional Planning | 2019 – 2020

- **Course 1. Planning for Megaregions (CRP 384)**
  - Introduce the regional convergence theory and the work on spatial inequality analysis for US megaregions
- **Course 2. Planning Colloquium (CRP 391D)**
  - Share the experience in the role of teaching assistant, comprehensive exams, and publications in class

WORK EXPERIENCES

Urban Analytics/GIS Web Developer | AECOM | Arlington, VA | Summer 2022

- **Project: Corridor Prioritization Tool with the Texas Department of Transportation**
  - Prioritize data automation from raw data to the data pond and run CPT with SQL
- **Project: Harris County EMMS**
  - Develop the website with Esri JavaScript API for Harris County on the crowd-sourcing road ranking system

Transit Intern | Capital Metro | Austin | Summer 2020

- **Individual work**: Annual Report of Safety Management System in Capital Metro

Urban Analytics Intern | China Academy of Urban Planning and Design | Beijing | Summer 2018

- **Project**: Research on Yangtze River Urban Agglomeration and Economic Belt
  - Aggregate and analyze the economic and social demographic data in the urban agglomeration in R
  - Estimate the economic competitiveness of the Yangtze River economic belt and provide policy insights

Urban Planner Intern | Arup | Shanghai | Summer 2017

- **Project:** Master Plan for Daishan Island, Zhejiang Province, China
  - Visualize the land use and transportation arrangement with AutoCAD and Photoshop
  - Analyze the proposed transit loops and traffic in the master plan

SERVICES

Editor | Planning Forum | 2021-2022

- Review and edit inquiries, essays, and photography stories submitted to Planning Forum, a student-led journal held by UT planning graduate students

Reviewer | Transportation Research Record | 2020

- Review the paper on express bus stop proximity and multifamily rents for TRR

Reviewer | 23rd COTA International Conference of Transportation Professionals | 2022

- Review three papers on passenger flow and spatiotemporal ridership characteristics of urban transit networks

Member | Student Planning Organization of UIUC/UT Austin | 2016 – 2018/2018 – present

- Present and comment on Shanghai 2035 Comprehensive Plan in City Café
- Present the summer workshop on international transportation issues in City Forum Talk

SKILLS

- **Language**: English (fluent), Chinese (native)
- **Office Tools**: Microsoft Word, PowerPoint, Excel (all advanced)
- **Data Analysis Software:** ArcGIS (advanced), SPSS (advanced), Trans CAD (basic)
- **Economic Analysis Models:** Hedonic model (advanced), Multi-Regional Input-Output Model, General Equilibrium Model
- **Programming:** R (advanced), Python (proficient), JavaScript (proficient), C++ (basic)
- **Graphic Design:** Adobe Photoshop, Illustrator, InDesign, AutoCAD, SketchUp (all proficient)