# **Zhiyuan Yao**

zyao@appstate.edu 323 Rankin Science West 572 Rivers Street Boone, NC 28608280

# **EDUCATION**

≻ Ur	niversity of Cincinnati	Ph.D. in Geographical Information Sciences	2015-2020
≻ G	uangzhou Institute of Geochemistry	M.S. in Geography and Geographical Information Sciences,	
Cl	hinese Academy of Sciences		2011-2014
≻ Sh	handong Normal University	<b>B.S. in Geographical Information Sciences</b>	2007-2011

#### **PROFESSIONAL EXPERIENCES**

- > Assistant Professor, Department of Geography and Urban Planning, Appalachian State University, 2024/08 -
- > Spatial Data Scientist, Data Science Center, UCLA, 2020/05 present
- > GIS Consultant, University of Cincinnati Libraries, 2018/5 2020/4
- Research Assistant, Health Geography and Disease Modeling Lab, Department of Geography and GIS, University of Cincinnati, 2020/05 - 2020/12
- Research Assistant, Spatial Temporal Analysis and Modelling (STAM), Department of Geography and GIS, University of Cincinnati, 2015/08 - 2020/04
- Research Assistant, Community Activity Research Exposure Study (CARES), Department of Environmental Health, University of Kentucky, 2018/05 - 2020/10

#### **PUBLICATIONS**

- > Yao, Z., Blumenberg, E., & Wander, M. (2024). Sex Differences in Child Care Travel. Transport Findings.
- Blumenberg, E., Wander, M., & Yao, Z. (2024). Decisions & distance: The relationship between child care access and child care travel. *Journal of Transport Geography*, 114, 103756.
- Blumenberg, E., Yao, Z. \*, & Wander, M. (2023). Variation in child care access across neighborhood types: A two-step floating catchment area (2SFCA) approach. *Applied Geography*, 158, 103054.
- Li, J. \*, Kim, C., Cuadros, D., Yao, Z., & Jia, P. (2023). Changes of Grocery Shopping Frequencies and Associations with Food Deserts during the COVID-19 Pandemic in the United States. *Journal of Urban Health*, 1-12.
- Yao, Z., & Kim, C. \* (2022). Analyzing the multiscale patterns of jobs-housing balance and employment self-containment by different income groups using LEHD data: A case study in the Cincinnati metropolitan area. *Computers, Environment and Urban Systems*, 96, 101851
- Yao, Z., & Kim, C. \* (2019). The Changes of Urban Structure and Commuting: An Application to Metropolitan Statistical Areas in the United States. *International Regional Science Review*, 42(1), 3-30.

#### **CONFERENCE PROCEEDINGS**

- Yao, Z., Blumenberg, E, & Wander, M. (2024) Variation in child care access across neighborhood types: A two-step floating catchment area (2SFCA) approach. *Annual Meeting of American Association of Geographers*, Honolulu, HI, 2024
- Yao, Z., & Kim, C. (2023). Analyzing the multiscale patterns of jobs-housing balance and employment self-containment by different income groups using LEHD data: A case study in the Cincinnati metropolitan area. *Annual Meeting of American Association of Geographers*, online, 2023
- Yao, Z., & Kim, C. (2021). Do people working in suburban areas experience less traffic congestion? An empirical study of the OKI region. *Annual Meeting of American Association of Geographers*, online, 2021.
- Yao, Z., & Kim, C. (2019). Is a jobs-housing balance possible to reduce commuting? An empirical study of the Cincinnati Metropolitan Area based on LEHD data. *American Association of Geographers Annual Meeting*, Washington D.C., 2019.
- Yao, Z., & Kim, C. (2017). The changes of urban structures and their effect on commuting patterns. American Association of Geographers Annual Meeting, Boston, 2017.
- Yao, Z., & Kim, C. (2016). Measuring spatial structure of American metropolitan statistical areas and an application to commuting time. 63rd Annual North American Meetings of the Regional Science Association International. Minneapolis, MN.

## **RESEARCH UNDER PREPARATION**

- > Riding Through Change: Gender-Specific Trends in Bike Share Pre- and Post-COVID-19
- > The scale effect of activity space on the patterns of grocery shopping in Great Twin Cities in Minnesota
- > The gender disparity in trip complexity in Los Angeles

# **TEACHING EXPERIENCES**

- > Carpentries Instructor (Since 2021/04)
  - <u>R for Reproducible Scientific Analysis</u>
  - <u>Programming with Python</u>
  - Plotting and Programming in Python
  - Geospatial analysis with R.
  - <u>Mapping and analyzing with QGIS</u>
- > Instructor, 2021/01-2021/03 Winter Quarter
  - EH207, Introduction to GIS, Fielding School of Public Health, UCLA
- > Guest Lecture, Fall 2020 & Winter 2021
  - DH199, Mapping racism, Urban design, and Thermal Inequality, Institute for Society and Genetics & Department of History, UCLA
  - EPS 1111, Stratigraphic and Field Geology, Department of Earth, Planetary, and Space Sciences, UCLA
- > Instructor (2019)
  - GEOG6081C/5181C, Introduction to GIS, Department of Geography and GIS, University of Cincinnati

- GEOG1001, Physical Geography, Department of Geography and GIS, University of Cincinnati
- Teaching Assistant (2015-2018)
  - GEOG5171C, Introduction to GIS, Department of Geography and GIS, University of Cincinnati
  - GEOG1040, Earth from Space, Department of Geography and GIS, University of Cincinnati
  - GEOG6091C, Advanced GIS, Department of Geography and GIS, University of Cincinnati
  - GEOG6085C, Spatial Statistics II, Department of Geography and GIS, University of Cincinnati

## GrantsGRANTS, AWARDS, & HONORS

- > Minnesota Institute for Leadership, \$2000, University of Minnesota, 2024/07
- LAUC Research & Professional Development Grant, \$4988, Co-PI, Librarians Association of the University of California, 2024 – 2025
- Laura Bush 21<sup>st</sup> Century Librarian Program, \$230,000, Program Coordinator, Institute of Museum and Library Service, 2022/08
- > LAU-LA Mini Grant, \$500, UCLA Library, 2020, 2021, 2023, & 2024
- > AAG-UIUC Research Grant, \$5000, University of Illinois at Urbana-Champaign, 2019/07
- Excellent Student Tuition and Insurance Grant, \$5000, College of Arts and Sciences, University of Cincinnati, 2018 -2020

## **MEMBERS & AFFILIATION**

- > American Association of Geographers, 2016 2024
- > The Carpentries Certified Instructor, 2021/04 present
- > UC GIS Leadership Committee, Committee member, 2020/6 present
- > Graduate Student Association, President, Department of Geography, University of Cincinnati, 2017 2018
- > Graduate Student Leadership, Monitor, Chinese Academy of Sciences, 2011 2012

## **RELATED SKILLS**

> Software	ArcGIS Pro, QGIS, SPSS, Visual Studio, R Studio	
> Programming	Python (GIS modeling), R (Statistical analysis).	
> Data Analysis	Spatial Analysis, Geostatistical Analysis (Network analysis	
	and Accessibility analysis), Machine Learning Modeling,	
	Urban Structures and Commuting/Travel Pattern Analysis.	
> GIS Techniques	Projections; Geocoding; Creating Professional maps.	