

CURRICULUM VITAE

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PROFESSIONAL APPOINTMENTS

University of Illinois Urbana-Champaign

Teaching Assistant Professor, Department of Urban and Regional Planning, 2025-present

Massachusetts Institute of Technology

Postdoctoral Fellow, Senseable City Lab, 2024 - 2025

EDUCATION

University of California Santa Barbara, 2023

Ph.D. in Geography (GIScience)

Co-chairs: Konstadinos Goulias, Somayeh Dodge

Wuhan University, China, 2019

M.S. in Cartography and Geographic Information System

Hefei University of Technology, China, 2016

B.S. in Geographic Information System

REFEREED JOURNAL PUBLICATIONS

1. **Su, R.***, Eshtiyagh, J.*, Santi, P., Hu, S., Duarte, F., Mazzarello, M., Ratti, C. (2025). Determinants of the localized behavior of individual online food delivery choices. *Transportation Research Part C: Emerging Technologies*, 178, 105185. doi:10.1016/j.trc.2025.105185 (*indicates equal contribution)
2. **Su, R.**, Newsham, N., Dodge, S. (2024b). Spatiotemporal dynamics of ethnoracial diversity and segregation in Los Angeles County: Insights from mobile phone data. *Computers, Environment and Urban Systems*, 114, 102203. doi: 10.1016/j.compenvurbsys.2024.102203
3. **Su, R.**, Liu, Y., Dodge, S. (2024a). ORTEGA v1.0: An open-source Python package for context-aware interaction analysis using movement data. *Movement Ecology*, 12, 20. doi: 10.1186/s40462-024-00460-2
4. Shi, H., Xiao, J., **Su, R.**, Goulias, K. (2024). Measurement of happiness of daily activity-travel schedules. *Travel Behaviour and Society*, 36, 100807.
5. **Su, R.**, Goulias, K. (2023). Untangling the relationships among residential environment, destination choice, and daily walk accessibility. *Journal of Transport Geography*, 109, 103595. doi: 10.1016/j.jtrangeo.2023.103595
6. Shi, H., **Su, R.**, Goulias, K. (2023). Exploring the impact of COVID-19 pandemic on Americans time use related subjective well-being. *Wellbeing, Space and Society*, 100148. doi:10.1016/j.wss.2023.100148
7. **Su, R.**, Dodge, S., Goulias, K. (2022b). A classification framework and computational methods for human interaction analysis using movement data. *Transactions in GIS*, 26(4), 1665-1682. doi: 10.1111/tgis.12960
8. **Su, R.**, Dodge, S., Goulias, K. (2022a). Understanding the impact of temporal scale on human movement analytics. *Journal of Geographical Systems*, 24(3), 353-388. doi:10.1007/s10109-021-00370-6 (JGS Editors' choice article)
9. Shi, H., **Su, R.**, Xiao, J., Goulias, K. (2022). Spatiotemporal analysis of activity-travel fragmentation based on spatial clustering and sequence analysis. *Journal of Transport Geography*, 102, 103382. doi: 10.1016/j.jtrangeo.2022.103382
10. **Su, R.**, Xiao, J., McBride, E., Goulias, K. (2021b). Understanding seniors daily mobility patterns in California using human mobility motifs. *Journal of Transport Geography*, 94, 103117. doi:10.1016/j.jtrangeo.2021.103117

11. **Su, R.**, McBride, E., Goulias, K. (2021a). Unveiling daily activity pattern differences between telecommuters and commuters using human mobility motifs and sequence analysis. *Transportation Research Part A: Policy and Practice*, 147, 106-132. doi:10.1016/j.tra.2021.03.002
12. **Su, R.**, Goulias, K. (2021). Evolution of the Chinese Spring Festival Travel network during the COVID-19 early outbreak. *Transportation letters*, 13(5-6), 492-500. doi:10.1080/19427867.2021.1896065
13. Dodge, S., **Su, R.**, Johnson, J., Simcharoen, A., Goulias, K., Smith, J., Ahearn, S. (2021). ORTEGA: an object-oriented time-geographic analytical approach to trace space-time contact patterns in movement data. *Computers, Environment and Urban Systems*, 88, 101630. doi: 10.1016/j.compenvurbsys.2021.101630
14. **Su, R.**, McBride, E., Goulias, K. (2020). Pattern recognition of daily activity patterns using human mobility motifs and sequence analysis. *Transportation Research Part C: Emerging Technologies*, 120, 102796. doi:10.1016/j.trc.2020.102796
15. Fang, Z., Huang, S., **Su, R.**, Xiao, H. (2020). Detecting hierarchical congestion intervals based on the fusion of multi-source highway data. *Geomatics and Information Science of Wuhan University*, 45(5), 682-690. (in Chinese)
16. **Su, R.**, Fang, Z. (2019). A review of studies in taxi mobility and e-hailing taxi service. *Journal of Smart Cities*, 4(1), 1-6.
17. Fang, Z., **Su, R.**, Huang, L. (2018). Understanding the effect of an E-hailing app subsidy war on taxicab operation zones. *Journal of Advanced Transportation*, 2018. doi:10.1155/2018/7687852
18. **Su, R.**, Fang, Z., Xu, H., Huang, L. (2018b). Uncovering Spatial Inequality in Taxi Services in the Context of a Subsidy War among E-Hailing Apps. *ISPRS International Journal of Geo-Information*, 7(6), 230. doi:10.3390/ijgi7060230
19. **Su, R.**, Fang, Z., Luo, N., Zhu, J. (2018a). Understanding the dynamics of the pick-up and drop-off locations of taxicabs in the context of a subsidy war among e-hailing apps. *Sustainability*, 10(4), 1256. doi:10.3390/su10041256

OTHER PUBLICATIONS

1. **Su, R.**, Dodge, S., Goulias, K. (2021). A time-geographic approach to quantify the duration of interaction in movement data. In *Proceedings of the 1st ACM SIGSPATIAL International Workshop on Animal Movement Ecology and Human Mobility* (pp. 18-26). (Best Paper Award)
2. Xiao, J., **Su, R.**, McBride, E., Goulias, K. (2020). Exploring the correlations between spatiotemporal daily activity-travel patterns and stated interest and perception of risk with self-driving cars. *AGILE: GIScience Series*, 1, 1-15. doi:10.5194/agile-giss-1-22-2020
3. Goulias, K., **Su, R.**, McBride, E. (2020). Revisiting the Impact of Teleworking on Activity-Travel Behavior Using Recent Data and Sequence-Based Analytical Techniques. *Research report to Pacific Southwest Region University Transportation Center*.
4. Goulias, K., McBride, E., **Su, R.** (2020). Life cycle stages, daily contacts, and activity-travel time allocation for the benefit of self and others. In: *Scheiner, J. and Rau, H. (eds) Mobility Across the Life Course*, Publisher: Edward Elgar. (Book chapter)

FELLOWSHIPS, SCHOLARSHIPS & AWARDS

Outstanding Dissertation Award, AAG Transportation Geography Specialty Group	2025
Honorable mention for 2023 Eric Pas Dissertation Prize, IATBR	2025
AAG-GISS Specialty Group Student Paper Competition Honorable Mention Award	2023
Jack and Laura Dangermond Fellowship, UCSB	2022
Geography Department Excellence in Research Award, UCSB	2022
Chinese Government Award for outstanding self-financed students abroad	2022
Chinese-American Engineers and Scientists Association of Southern California Scholarship	2022

CONFERENCE PRESENTATIONS

1. Determinants of the localized behavior of individual online food delivery choices. *2025 Transportation Research Board Annual Meeting*. Washington D.C. January 6, 2025. (Full paper submission; Poster presentation)
2. Traveling Tastes. *2024 MIT Senseable Forum on Future Cities: Being Physical*. Cambridge, MA. November 21, 2024. (Oral presentation)
3. Spatiotemporal Dynamics of Ethnoracial Diversity and Segregation: Insights from Mobile Phone Data. *ESRI Higher Education Webinar: Discover the Power of Spatial Data Science for Advancing Knowledge* (online). December 7, 2023. (Panelist)
4. Spatiotemporal Dynamics of Racial-ethnic Diversity and Segregation: Insights from Mobile Phone Data. *Spatial Hour at the Center for Spatial Studies and Data Science, UCSB*. Santa Barbara, CA. November 29, 2023.
5. ORTEGA: An open-source Python package for context-aware interaction analysis based on movement data. *2023 GISS Specialty Group Student Paper Competition, American Association of Geographers Annual Meeting*. Denver, CO. March 24, 2023. (Full paper submission; Oral presentation; **Honorable Mention Award**)
6. Toward a taxonomy and computational methods for human interaction analysis using movement data. *2022 ESRI User Conference*. San Diego, CA, July 12, 2022. (Oral presentation)
7. Heterogeneity in the relationship of vehicle miles traveled with the built environment: A quantile regression approach. *2022 UCGIS Symposium*. Syracuse, NY. June 7-9, 2022. (Extended abstract submission; Lightning talk, acceptance rate: 9/40)
8. Understanding the impact of temporal scale on human movement analytics. *2022 American Association of Geographers Annual Meeting* (online). February 26, 2022. (Oral presentation)
9. A time-geographic approach to quantify the duration of interaction in movement data. *1st ACM SIGSPATIAL International Workshop on Animal Movement Ecology and Human Mobility*. Beijing, China (online). November 2, 2021. (Full paper submission; Oral presentation; **Best Paper Award**)
10. Unveiling the taxonomy of daily travel and time use patterns using human mobility motifs and sequence analysis. *2021 American Association of Geographers Annual Meeting* (online). April 8, 2021. (Oral presentation)
11. An exploration of human mobility motifs in the California component of the 2017 National Household Travel survey. *hEART 2020: 9th Symposium of the European Association for Research in Transportation* (online). February 3-4, 2021. (Extended abstract submission; Recorded oral presentation)
12. Unveiling daily activity pattern differences between telecommuters and commuters using human mobility motifs and sequence analysis. *2021 Transportation Research Board Annual Meeting* (online). January 27, 2021. (Poster presentation)
13. Pattern recognition of daily activity patterns using human mobility motifs and sequence analysis. *2021 Transportation Research Board Annual Meeting* (online). January 26, 2021. (Poster presentation)
14. Unveiling daily activity pattern differences between telecommuters and commuters using human mobility motifs and sequence analysis. *Activity and Time-Use Patterns Subcommittee Meeting of 2021 Transportation Research Board Annual Meeting* (online). January 5, 2021. (Invited talk)
15. Accurate road anomaly detection by trajectory mining. *1st ACM SIGSPATIAL International Workshop on Ride-hailing Algorithms, Applications, and Systems*. Chicago, IL. November 5, 2019. (Full paper submission; Poster presentation)
16. Uncovering the changes of urban taxi travel demand in the context of a subsidy war among e-hailing apps. *China Geographic Information Science Theory and Methodology Annual Conference*. Taiyuan, China. November 2-4, 2018. (Full paper submission; Oral presentation; **Best Paper Award**)
17. Uncovering the changes of the pick-up and drop-off locations of taxicabs in the context of a subsidy war among e-hailing apps. *The 9th International Forum of Spatially Integrated Humanities and Social Sciences*. Shanghai, China. June 23-25, 2018. (Oral presentation)

TEACHING EXPERIENCE

Instructor, Department of Urban and Regional Planning, UIUC
GIS for Planners (Fall 2025)

Guest Lecturer, Department of Geography, UCSB

Transportation Modeling and Simulation (Winter 2020): Guest lectured a class on reviewing transportation data and methodologies, focusing on technical skills for exploring and visualizing data to understand travel behavior.

Teaching Assistant, Department of Geography, UCSB

Transportation Planning and Modeling (Fall 2019, Fall 2020)

Transportation Modeling and Simulation (Winter 2020, Winter 2021)

Smart Green Cities (Spring 2020)

GRANTS

1. Evolution of the Chinese Spring Festival travel network during the COVID-19 early outbreak, Summer 2021
 - Funder: Multidisciplinary Research on the Coronavirus and its Impacts Grant, UCSB
 - Collaborator: Dr. Konstadinos Goulias
 - Amount: \$2,000
 - Role: PI
2. A time-geographic approach to quantify the duration of interaction in human movement based on low-frequency tracking data, Summer 2021
 - Funder: Summer Research Award, Department of Geography, UCSB
 - Collaborators: Dr. Somayeh Dodge, Dr. Konstadinos Goulias
 - Amount: \$4,850
 - Role: PI

ADVISING & MENTORING

Undergraduate mentoring:

Enerelt Delgerdalai - Computer Science & Engineering Major, MIT, 2024-2025

Tiffany Wang - Computer Science & Engineering Major, MIT, 2024

Tongli Zhang - Department of Statistics and Applied Probability, UCSB, 2023

Qianyu He - Department of Geography, UCSB, 2023

PEER REVIEWER AND GUEST EDITOR

Guest editor for journals:

GIScience & Remote Sensing

Peer reviewer for academic journals/conferences

Applied Energy

Applied Network Science

Applied Spatial Analysis and Policy

Computational Urban Science

Data Science for Transportation

European Journal of Transport and Infrastructure Research

Geomatics

GIScience&Remote Sensing

Humanities and Social Sciences Communications

International Journal of Geographical Information Science

IEEE Transactions on Computational Social Systems

IEEE Transactions on Intelligent Transportation Systems

IEEE Access

International Journal of Data Science and Analytics

Journal of Transport Geography

Journal of Happiness Studies

Journal of Spatial Information Science

Nature Human Behaviour

npj Sustainable Mobility and Transport

Transactions in GIS
 Transportation
 Transportation Research Part A: Policy and Practice
 Transportation Research Part C: Emerging Technologies
 Transportation Letters
 Transportation Research Record
 Transportation Planning and Technology
 Transportation Research Board Annual Meeting
 Travel Behaviour and Society
 Public Transport
 Plos One
 Scientific Reports
 Scientific Data
 World Transport Convention

Conference Organizing Committee:

Comprehensive Transportation Network Planning Technical Committee, 2025 World Transport Convention
 Traffic Behaviour Modeling and Transport Policy Analysis Subcommittee, 2024 World Transport Convention

SERVICE

UCSB departmental/university service:

Geography Sport Committee, 2019-2020
 Geography Events Committee, 2020-2021
 Volunteer for the Graduate Application Materials Assistance Program, 2023
 Volunteer for the Geography Peer Mentor Program, 2022-2023
 Volunteer for the department's open house for prospective graduate students, 2023
 Volunteer in the graduate student panel for the department's "How-to-Apply" orientation for prospective graduate students, 2021

Other:

Volunteer for Chinese Rainbow Network (NGO), 2025-present

OTHER AWARDS

AAG Spatial Analytics and Modeling Speciality Group Student Travel Award	2023
AAG Transportation Geography Specialty Group Travel Award	2023
Jack and Laura Dangermond Travel Award for 2023 AAG Annual meeting	2023
UCSB Graduate Student Association Conference Travel Grant	2023
UCSB Doctoral Student Travel Grant	2022
UCGIS Symposium Travel Award	2022
UCSB Graduate Student Association Conference Travel Grant	2022
Jack and Laura Dangermond Travel Award for 2022 ESRI User Conference	2022
Jack and Laura Dangermond Travel Award for 2022 AAG Annual meeting	2022
Jack and Laura Dangermond Travel Award for 2021 ACM SIGSPATIAL Conference	2021
Jack and Laura Dangermond Travel Award for 2021 AAG Annual meeting	2020
Jack and Laura Dangermond Travel Award for 2021 TRB Annual meeting	2020
Jack and Laura Dangermond Travel Award for 2019 ACM SIGSPATIAL Conference	2019