

**Curriculum Vitae**  
**Taylor M. Oshan**  
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**EDUCATION**

- 2017 **Ph.D. in Geographic Information Science**  
School of Geographical Sciences and Urban Planning  
Arizona State University, Tempe, Arizona
- 2013 **M.A. in Geography**  
Hunter College, New York, NY
- 2011 **Graduate Certificate in Geographic Information Systems**  
2010 **B.A. in History**  
University of Delaware, Newark, DE  
Minor: Anthropology

**WORK EXPERIENCE**

**Academic Positions**

- 2018 - **Assistant Professor**  
Center for Geospatial Information Science  
Department of Geographical Sciences, University of Maryland, College Park
- 2021 - **Affiliate**  
Social Data Science Center  
University of Maryland, College Park
- 2021- **Affiliate**  
Maryland Transportation Institute  
University of Maryland, College Park
- 2021- **Affiliate**  
Maryland Population Research Center  
University of Maryland, College Park
- 2018 **Postdoctoral Research Fellow**  
SPARC (SPatial Analysis Research Center), Tempe, Arizona
- 2014 - 2017 **Research Associate**  
SPARC (SPatial Analysis Research Center – Former GeoDa Center), Tempe, AZ
- 2014 **Early Stage Research Fellow**  
Centre for GeoInformatics, St. Andrews, UK

- 2012 - 2013    **Research Assistant**  
Hunter College, New York, NY
- 2011            **GIS Intern**  
Center for Historic Architecture and Design, Newark, Delaware

### **Related Experience**

- 2016 – present **Open Source Developer**  
Python Spatial Analysis Library (PySAL)
- Fall 2016        **Spatial Data Science Consultant**  
Carto, Brooklyn, New York
- 2009 - 2015    **GIS Specialist**  
Poggio Civitate Archaeological Project, Siena, Italy

### **GRANTS & AWARDS**

#### **Pending grants**

- 2022    UK Economic and Social Research Council – Secondary Data Analysis Initiative, “Putting Segregation in Context: Studying Systematic Relationships between Experienced and Classical Segregation in City and Region” (~355k USD (300k GBP) w/ ~\$20k as co-PI w/ PI Wolf 07/01/2023-06/30/2025).

#### **Research Support**

- 2022    Filecoin Foundation for the Decentralized Web – “Efficient, Accessible, & Sustainable Infrastructure for Remotely-sensed (EASIER) Data for the World’s Location-Based Assets” (\$1,056,000 as sole PI 07/2022-08/2024).
- 2022    Washington Metropolitan Area Transit Authority, “Geospatial Analysis and Land Use Ridership Models of the Washington Metropolitan Area Transit Authority System” (\$350k as PI w/ co-PIs Knaap, Iseki, & Stewart 07/23/22-02/28/2024).
- 2022    Textile Haggie Grant, “Efficient, Accessible, & Sustainable Infrastructure for Remotely-sensed (EASIER) Data” (\$20k as PI 01/1/2022-8/31/2022).
- 2021    National Science Foundation – Human-environment and Geographical Sciences, “Revisiting Traditional Problems in Spatial Analysis through the Lens of Local Modeling” (\$400k w/ 157k as co-PI w/ PI Fotheringham 10/1/2021-9/31/2024).
- 2021    Maryland Population Research Center (UMD), Seed Grant (\$14,000).

- 2021 College of Behavioral & Social Science (UMD), Dean's Research Initiative (\$13,000).
- 2019 The Graduate Education School (UMD), RASA Summer Research Grant (\$9,000).
- 2017 National Science Foundation – Geography and Spatial Sciences, “The Measurement of Scale and Process Heterogeneity through Local Multivariate Models” (\$400,000 with ~\$35,000 awarded to me from 1/4/2018-1/4/2021 as coauthor/consultant/contributor).
- 2017 Institute for Social Science Research (ASU), Seed Grant (\$7,200).
- 2017 Department of Geographical Sciences and Urban Planning (ASU), Research Support Award (\$350).
- 2016 Google, Summer of Code Grant to work with the Python Spatial Analysis Library (PySAL) (\$5500)
- 2016 Department of Geographical Sciences and Urban Planning (ASU), Research Support Award (\$350).
- 2015 Department of Geographical Sciences and Urban Planning (ASU), Research Support Award (\$700).
- 2014 Graduate and Professional Student Association (ASU), Graduate Research Support Program, Spatial Flows in Complex Urban Environments (\$1200).
- 2014 Department of Geographical Sciences and Urban Planning (ASU), Research Support Award (\$350).

### **Travel Support**

- 2017 Graduate Education Office (ASU), Travel Award, (\$500).
- 2016 Graduate and Professional Student Association (ASU), Travel Grant (\$950).
- 2016 Scientific Computing with Python (Scipy), Conference Travel Award (\$500)
- 2015 Graduate Education Office (ASU), Travel Award, (\$500).
- 2015 Graduate and Professional Student Association (ASU), Travel Grant (\$950).

### **Teaching Support**

- 2022 Teaching & Learning Transformation Center Experiential Learning Grant, “Cloud-based Active Learning for BSOS Statistics and Data Science Courses” (\$66,786.86 w/ 4k as co-PI w/ PI Kim)

2020 Office of the Senior VP and Provost (UMD), Teaching Innovation Grant (\$6,414.42).

### **Fellowships & Scholarships**

2017 Graduate Education Office (ASU), Dissertation Completion Fellowship (\$9,500).

2015 United States Geospatial Intelligence Foundation, Scholarship (\$5000).

2014 Department of Geographical Sciences and Urban Planning (ASU), University Graduate Fellowship (\$2500).

2011 The Etruscan Foundation, The Etruscan Foundation Fieldwork Fellowship (\$2000).

### **Other Awards**

2019 American Association of Geographers, Nystrom Competition Finalist.

2018 Transportation Geography Specialty Group (AAG), Outstanding Dissertation Award (\$250).

2017 College of Liberal Arts and Sciences (ASU), College Outstanding Graduate Student. (Video profile: <https://www.youtube.com/watch?v=qp2KSZK46nc&feature=youtu.be>)

2017 College of Liberal Arts and Sciences (ASU), Student Leader Award.

2016 Department of Geographical Sciences and Urban Planning (ASU), Anthony J. Brazel Research Award (\$1500).

## **PUBLICATIONS & PRESENTATIONS**

### **Books In Preparation**

Fotheringham, A.S., **Oshan, T.M.**, and Li, Z. (Manuscript Completed, Anticipated for 2023). "Multiscale Geographically Weighted Regression: context-driven spatial modeling". Contract pending with Routledge.

### **Manuscripts In Preparation**

1. **Oshan, Taylor** and Hoffman, Tyler (In preparation). "Scale spectrum regression (SSR): a multiscale technique for simultaneously selecting spatial weights and modeling spatial processes". Targeting *The Professional Geographer*.
2. **Oshan, Taylor** and Liao, Mengyu (In preparation). "Spatial interaction, competing destinations, and accessibility: a recapitulation and a new direction". Targeting *Environment & Planning B: Urban Analytics and City Science*.

3. **Oshan, Taylor** (In preparation). “Locally adaptive geographically weighted regression (LAGWR): A multiscale model for analyzing inter-process and intra-process spatial heterogeneity”. Targeting *Geographical Analysis*.
4. Wolf, Levi, Park, Souneil, and **Oshan, Taylor** (In Preparation). “Understanding Patterns of “Ambient” Segregation and Integration in Urban Lives”. Targeting *The Annals of the American Association of Geographers*.
5. **Oshan, Taylor** (In preparation). “Strategies for visualizing process scale and heterogeneity via multiscale geographically weighted regression”. Targeting *Cartography and Geographic Information Science*.

### Refereed Publications

1. **Oshan, Taylor M.** (2022), Navigating the Methodological Landscape in Spatial Analysis: A Comment on “A Route Map for Successful Applications of Geographically-Weighted Regression”. *Geographical Analysis*. Early View Online.
2. **Oshan, Taylor**, Sachdeva, Mehak, Wolf Levi, and Sarah Bardin (2022). A scoping review on the multiplicity of scale in spatial analysis”. Special issue on scale and spatial analysis in *Journal of Geographical Systems* 24: 293–324.
3. Liu, Zheng & **Taylor Oshan** (2022). “Predicting ‘cold start’ demand in a dock-based bike-share system: a comparison of spatial interaction models and flow interpolation techniques”. *Transactions in GIS* 26(4):2081-2098.
4. Fotheringham, Stewart, Yu, Hanchen Wolf, Levi, **Oshan, Taylor**, and Ziqi Li. (2022) “On the notion of ‘bandwidth’ in local models”. *International Journal of Geographical Information Science* 36(8): 1485-1502.
5. Rey, S., Anselin, L., Amaral, P., Arribas-Bel, D., Cortes, R., Gaboardi, J., Kang, W., Knaap, E., Li, Z., Lumnitz, S., **Oshan, T.**, Shao, H., & Wolf, L. (2021) “The PySAL ecosystem: philosophy and implementation”. *Geographical Analysis* 54(3): 467-487.
6. Sauer, J., **Oshan, T.**, Rey, S., & Wolf, L. (2021) “The Importance of Null Hypotheses: Understanding Differences in Local Moran’s under Heteroskedasticity” *Geographical Analysis* 54(4): 752-768.
7. **Oshan, Taylor** (2021). “The Spatial Structure Debate in Spatial Interaction Modeling: 50 Years On”. *Progress in Human Geography* 45(5): 925-950.
8. Park, Souneil, & **Taylor Oshan** (2021) “Are we breaking bubbles as we move? Using a large sample to explore the relationship between urban mobility and segregation”. *Computers, Environment, and Urban Systems* 86: 101585.

9. **Oshan, Taylor.** (2020). "Potential and pitfalls of big transport data for spatial interaction models of urban mobility" *The Professional Geographer* 72(4): 468-480.
10. Yu, H., Fotheringham, A. S., Li, Z., **Oshan, T. M.**, & Wolf, L. J. (2020). On the Measurement of Bias in Geographically Weighted Regression Models. *Spatial Statistics* 38: 100453.
11. **Oshan, Taylor,** Jordan P. Smith, & A. Stewart Fotheringham (2020) "Targeting the spatial context of obesity determinants via multiscale geographically weighted regression". *International Journal of Health Geographics* 19(11).
12. Li, Z., Fotheringham, A. S., **Oshan, T. M.**, & Wolf, L. J. (2020). Measuring Bandwidth Uncertainty in Multiscale Geographically Weighted Regression Using Akaike Weights. *The Annals of the American Association of Geographers* 110 (5), 1500-1520.
13. Yu, Hanchen, A. Stewart Fotheringham, Ziqi Li, **Taylor Oshan,** Wei Kang, and Levi Wolf. (2020). "Inference in Multi-scale Geographically Weighted Regression." *Geographical Analysis* 52(1): 87-106.
14. **Oshan, Taylor,** Levi Wolf, Stewart Fotheringham, Wei Kang, Ziqi Li, and Hanchen Yu. (2019). "A comment on geographically weighted regression with parameter-specific distance metrics". *International Journal of Geographical Information Science* 33 (7): 1289-1299.
15. Kang, W., **T. Oshan,** L. J. Wolf, G. Boeing, A. Poorthuis, S. Gao, W. Xu, V. Frias-Martinez (2019). "A Roundtable Discussion: Defining Urban Data Science", *Environment and Planning, B: Urban Analytics and City Science* 6(9): 1756–1768.
16. **Oshan, Taylor,** Ziqi Li, Wei Kang, Levi Wolf, and Stewart Fotheringham. (2019). "mgwr: A Python implementation of multiscale geographically weighted regression for investigating process spatial heterogeneity and scale." *International Journal Geo-Information* 8 (6): 269.
17. Ziqi Li, A. Stewart Fotheringham, Wenwen Li & **Taylor Oshan** (2019). "Fast Geographically Weighted Regression (FastGWR): a scalable algorithm to investigate spatial process heterogeneity in millions of observations". *International Journal of Geographical Information Science* 33 (1), 155-175.
18. **Oshan, Taylor M.** and A. Stewart Fotheringham (2018). "A Comparison of Spatially Varying Regression Coefficient Estimates Using Geographically Weighted and Spatial-Filter-Based Techniques". *Geographical Analysis* 50 (1), 53-75.
19. Wolf, Levi J. and **Taylor M. Oshan** and A. Stewart Fotheringham (2018). "Single- and Multi-Scale Models of Spatial Process Heterogeneity". *Geographical Analysis* 50(3): 223-246.
20. **Oshan, Taylor M** (2016). "A Primer for Working with the Spatial Interaction Modeling (SpInt) Module in the Python Spatial Analysis Library (PySAL)". *REGION* 3 (2): 11.

21. Fotheringham, A. Stewart, and **Taylor M. Oshan** (2016). “Geographically Weighted Regression and Multicollinearity: Dispelling the Myth”. *Journal of Geographical Systems* 18 (4): 303–29.
22. Siła-Nowicka, Katarzyna, Vandrol, Jan, **Oshan, Taylor**, Long, Jed, Demšar, Urška, and Fotheringham, Stewart (2016). “Analysis of Human Mobility from GPS Trajectories and Contextual Information”. *International Journal of Geographical Information Science* 30 (5): 881-906.

### Refereed Book chapters

1. **Oshan, Taylor** (2022). “Spatial Interaction Modeling”. *Handbook of Spatial Analysis in the Social Sciences*. Sergio Rey and Rachel Franklin (eds.).
2. Sachdeva, Mehak, **Oshan, Taylor**, and Stewart Fotheringham (2022). “Local Modeling in a Regression Framework”. *Handbook of Spatial Analysis in the Social Sciences*. Sergio Rey and Rachel Franklin (eds.).
3. Farmer, C. and **Oshan, T.** (2017). Spatial interaction. *The Geographic Information Science & Technology Body of Knowledge* (4th Quarter 2017 Edition), John P. Wilson (ed.). DOI:10.22224/gistbok/2017.4.5

### Software and Manuals

1. Multiscale Geographically Weighted Regression (MGWR). (2022). [Python]. Python Spatial Analysis Library. <https://github.com/pysal/mgwr> (Original work published 2018).
2. Spatial Interaction Modeling Package. (2022). [Python]. Python Spatial Analysis Library. <https://github.com/pysal/spint> (Original work published 2017).
3. Sparse Generalized Linear Modeling. (2021). [Python]. Python Spatial Analysis Library. <https://github.com/pysal/spglm> (Original work published 2017).
4. Ziqi Li, **Taylor Oshan**, Stewart Fotheringham, WeiKang, LeviWolf, Hanchen Yu, Mehak Sachdeva, and Sarah Bardin (2019). “MGWR 2.2 User Manual”. Available online: <https://sgsup.asu.edu/sparc/multiscale-gwr>

### Refereed Conference Proceedings and Extended Abstracts

1. Hoffman, T. D., & **Oshan, T.** (2021). A Supervised Heuristic for a Balanced Approach to Regionalization. 29<sup>th</sup> Annual GISRUK 2021 Annual Conference, 6p.
2. Liu, Z., & **Oshan, T.** (2021). Predicting ‘cold start’ spatial interaction demand in a dock-based bike-sharing system. Workshop on Advancing Movement Data Science (AMD’21) at 11th International Conference, GIScience 2021, Poznan, Poland September 27.

3. **Oshan, Taylor M.** and A. Stewart Fotheringham (2016) “A Closer Examination of Spatial-Filter-Based Local Models”. *Geographic Information Science*. 9th International Conference, GIScience 2016, Montreal, Canada September 27-30, 2016, Proceedings.
4. **Oshan, Taylor**, Farmer, Carson, and O’Donoghue, Eoin. (2014) “Spatial Interaction Simulation Methods for Ancient Settlement Distributions in Central Italy”. *Archaeology in the Digital Era. Papers from the 42nd Annual Conference of Computer Applications and Quantitative Methods in Archaeology (CAA), Paris, 22-25 April 2014*.

### **Non-Refereed Publications**

1. **Oshan, Taylor** (2013) “Spatial Interaction Simulation Methods for Ancient Settlement Distributions in Central Italy”. *Hunter College, Department of Geography*, 100p. (Thesis)
2. **Oshan, Taylor** (2017) “A New Era of Spatial Interaction: Potential and Pitfalls”. *Arizona State University, School of Geographical Sciences and Urban Planning*. (Dissertation)

### **Non-Refereed Conference Presentations & Abstracts**

1. Liu, Zheng and **Oshan, Taylor** (2022) *A comparison of bike-share and general mobility change in the COVID-19 pandemic*. Submitted to the Association of American Geographers annual meeting March 25nd-28th, New York, New York (virtual).
2. Cook, David and **Oshan, Taylor** (2022) *Local Determinants of Morbidity: Using Multi-Scale Spatial Modeling to examine associations in US counties between socio-demographic indicators, built environment characteristics and Covid-19 deaths*. Submitted to the Association of American Geographers annual meeting March 25nd-28th, New York, New York (virtual).
3. Hoffman, Tyler and **Oshan, Taylor** (2022) *A model-driven approach to regionalization and spatial change-of-support*. Submitted to the Association of American Geographers annual meeting March 25nd-28th, New York, New York (virtual).
4. **Oshan, Taylor** (2019) *Potential and pitfalls of big transport data for spatial interaction models of urban mobility*. Presented at the Association of American Geographers annual meeting April 3rd-7th, Washington, D.C..
5. **Oshan, Taylor** (2018) Robust dynamics: High frequency temporal variation in urban travel demand. Presented at the Carto Spatial Data Science Conference October 10<sup>th</sup> Brooklyn, New York.
6. **Oshan, Taylor** (2018) *Including Temporal Dynamics in Spatial Interaction Models*. Presented at the Association of American Geographers annual meeting April 10th-14th, New Orleans, Louisiana.

7. **Oshan, Taylor** (2017) *Exploring Spatial Autocorrelation amongst Spatial Interaction Vectors*. Presented at the Association of American Geographers annual meeting April 5th-9th, Boston, Massachusetts.
8. **Oshan, Taylor M.** and A. Stewart Fotheringham (2016) *A Closer Examination of Spatial-Filter-Based Local Models*. Presented at the Geographic Information Science 9th International Conference September 27-30, Montreal, Canada.
9. **Oshan, Taylor** (2016) *A Comparison of Spatially Varying Regression Coefficients Using Geographically Weighted and Spatial Filter Techniques*. Presented at the Association of American Geographers annual meeting March 30th-April 2nd, San Francisco, California.
10. **Oshan, Taylor** (2015) *Modeling Bike Share Data as Spatial Interaction*. Presented at the Association of American Geographers annual meeting April 22nd-25th, Chicago, Illinois.
11. **Oshan, Taylor** and Fotheringham, Stewart (2014) *pySI: A Python Framework for Spatial Interaction Modeling*. Presented in Geospatial Data in Science track at SciPy conference July 6th-12th, Austin, Texas.
12. Sila-Nowika, K, **Oshan, T.**, Vandrol, J, and Fotheringham, S. (2014) *Enhancing User Generated Content (GPS Trajectories) with Spatial Analysis*. Poster presented at Designing and Interacting with Spatial Information in the Wild, March 28th, Edinburgh, United Kingdom.
13. **Oshan, T.** (2014) *Spatial Interaction Simulation Methods for Ancient Settlement Distributions in Central Italy*. Paper presented at Computer Applications and Quantitative Methods in Archaeology annual meeting, April 22nd-25th, Paris, France.
14. **Oshan, Taylor** and Kansa, Eric, (2014) *More than a Dot on a Map: Poggio Civitate Geospatial Data in Context*. Poster presented at Archaeological Institute of America Annual Meeting, January 2nd-5th, Chicago, Illinois.

### **Invited Talks**

2022 Quantitative Spatial Science Research Group (University of Bristol) *Some New Directions in Multiscale Modeling: From Global to Local and Back Again*.

2021 Bell Edwards Geographic Data Institute (University of Saint Andrews) *New directions in geographically weighted regression modeling*.

2021 National Center for Smart Growth seminar series (University of Maryland, College Park) *Spatial analytics for urban modeling: the case of spatial interaction models*.

2020 Invited talk (Hunter College Department of Geography) *Local Models & Multiscale Geographically Weighted Regression (MGWR): the geography of relationships & a health application.*

2018 Invited talk (George Mason University Department of Geography and GeoInformation Sciences) *The Future of Spatial Analysis: Honing in on Geographic Process.*

2018 GEOG Seminar Series (University of Maryland, College Park Department of Geographical Sciences) *The Future of Spatial Analysis: Honing in on Geographic Process.*

2016 Carto (Brooklyn, NY office) *An introduction to geographically weighted regression.*

### **ACADEMIC ADVISING AND MENTORSHIP (\* denotes completion)**

#### **Doctoral Graduate Advising – Supervisor**

Zheng Lui (PhD, 2019-present, UMD)  
Mengyu Liao (PhD, 2021-present, UMD)  
Victor Irekponor (PhD, 2022-present, UMD)  
Ushashi Podder (PhD, 2022-present, UMD)

#### **Doctoral Graduate Advising – Committee member**

Jiahui Wu (PhD, 2020\*, UMD) - Committee member  
Jeffrey Sauer (PhD, 2020-2022\*, UMD) - Committee member  
Zhiyue Xia (PhD, 2020-2022\*, UMD) - Committee member  
Sebastijan Sekulic (PhD, 2022\*, University of St Andrews) – External examiner  
Mofeng Yang (MS, 2020-present, UMD) - Committee member  
Guimin Zhu (PhD, 2021-present, UMD) - Committee member  
Jamis Bruening (PhD, 2022-present, UMD) - Committee member  
Peiqi Zhang (PhD, 2022-present, UMD) - Committee member

#### **Masters Graduate Advising – Committee member**

Yared Lemma (MA, 2019\*, Duke) –external thesis advisor  
Mofeng Yang (MS, 2020\*, UMD) - Committee member

#### **Graduate Advising – Other mentoring**

Bryan Eder (MS, UMD) – 2019 summer research advisor  
David Cook (MS GIS, 2021, UMD) – capstone advisor  
Mehak Sachdeva (PhD, ASU) – 2019 Google summer of code mentor  
Jeffrey Sauer (PhD, UMD) – 2020 Google summer of code mentor  
Lenka Hasova (PhD, Bristol) – 2021 Google summer of code mentor  
Tyler Hoffman (PhD, ASU) – 2021 Google summer of code mentor

## **Undergraduate Advising**

Tyler Hoffman\* (BS, UMD) – 2020 research advisor (Awarded NSF GRF)

Matthew Tralka (BS, UMD) – 2021 research advisor

Dagmawit Asfaw (2021) – ARLIS RISC Summer intern mentor

Ambika Sikri (2021) – ARLIS RISC Summer intern mentor

Elizabeth Varghese (2021) – ARLIS RISC Summer intern mentor

## **PROFESSIONAL ACTIVITIES AND SERVICE**

### **Service to University**

2021-2022 – Assist in the formation of the Accessible Learning Lab (ALL) (UMD)

### **Service to College**

Fall 2020            Social Data Science Curriculum Committee (UMD – College of BSOS/iSchool)

### **Service to Department**

Fall 2022            GEO Center Task Force (UMD – Geographical Sciences)

Spring 2022        GEO Center Task Force (UMD – Geographical Sciences)

Fall 2021            GEO Center Task Force (UMD – Geographical Sciences)

Spring 2021        Graduate Program Committee (UMD – Geographical Sciences)

Fall 2020            Graduate Program Committee (UMD – Geographical Sciences)

Spring 2019        Undergraduate Program Committee (UMD – Geographical Sciences)

Fall 2019            CGIS Faculty Search Committee (UMD – Geographical Sciences)

Fall 2019            Undergraduate Program Committee (UMD – Geographical Sciences)

Fall 2018            CGIS Faculty Search Committee (UMD – Geographical Sciences)

Fall 2018            Undergraduate Program Committee (UMD – Geographical Sciences)

2015-2016          Colloquium Committee (ASU – Geographical Sciences and Urban Planning)

### **Editorial and Organizational Leadership**

2021 – present    Board Member (AAG Spatial Analysis & Modeling Specialty Group)

2020 – present    Associate Editor (Computational Urban Science)

2014 - 2016        Grant and Award Reviewer (Graduate and Professional Student Association)

2012- 2013        Founder & President (Hunter College GIS Society)

### **Grant Review Panels**

• National science foundation – Human Environment and Geographical Sciences panel review (11/8/22–11/10/22)

- National science foundation – Human Environment and Geographical Sciences panel review (3/30/22–1/1/22)

## **Journal Reviews**

- 2022 – present Reviewer (Mathematical Population Studies – 1)
- 2022 – present Reviewer (Spatial Economic Analysis – 1)
- 2022 – present Reviewer (Spatial Statistics – 2)
- 2022 – present Reviewer (GIScience & Remote Sensing – 1)
- 2021 – present Reviewer (International Journal of Digital Earth – 1)
- 2021 – present Reviewer (npj Urban Sustainability – 1)
- 2021 – present Reviewer (Journal of Spatial Information Science – 1)
- 2021 – present Reviewer (Scientific Reports – 1)
- 2021 – present Reviewer (Cartography & Geographic Information Science – 1)
- 2021 – present Reviewer (Geocarto International – 1)
- 2021 – present Reviewer (Annals of AAG – 4)
- 2020 – present Reviewer (Transportation Research Board– 2)
- 2020 – present Reviewer (Remote Sensing of Environment – 2)
- 2020 – present Reviewer (Annals of GIS – 1)
- 2020 – present Reviewer (International Journal of Health Geographics – 3)
- 2020 – present Reviewer (Proceedings of the National Academy of Sciences – 1)
- 2020 – present Reviewer (GIS&T Body of Knowledge – 2)
- 2020 – present Reviewer (Computational Statistics – 1)
- 2020 – present Reviewer (TEST -1)
- 2020 – present Reviewer (Transactions in GIS – 4)
- 2020 – present Reviewer (Sensors – 1)
- 2020 – present Reviewer (PLOS One – 1)
- 2019 – present Reviewer (Annals of Regional Science – 1)
- 2019 – present Reviewer (The Professional Geographer – 5)
- 2019 – present Reviewer (Region – 1)
- 2018 – present Reviewer (The Journal of Geographical Systems – 6)
- 2018 – present Reviewer (The Geographical Journal – 1)
- 2018 – present Reviewer (Environment & Planning B: Urban Analytics & City Science – 7)
- 2018 – present Reviewer (Entropy – 1)
- 2018 – Present Reviewer (International Journal of Geo-Information – 9)
- 2017 – present Reviewer (Moravian Geographical Reports – 2)
- 2017 – present Reviewer (International Journal of Geographical Information Science – 16)
- 2014 – present Reviewer (Geographical Analysis – 15)

## **Professional Membership**

- 2011- present Member (American Association of Geographers)
- 2011 -2014 Member (Archaeological Institute of America)
- 2013 Member (NYS GIS Association)
- 2013 Member (Geographic Information Systems and Mapping Operations NYC)

## **Event Organization and Participation**

- Organized and hosted Seminar Series on Spatial Multiscale Analytics, Applied Research, & Technology (SMAART) (10 virtual speakers from 10/2020-8/21)
- Instructor (25 participants). Workshop on Multiscale Geographically Weighted Regression at the 2021 University Consortium of Geographic Information Science Annual Symposium.
- Participant. Presented “Process Indicator of Scale Metrics (PRISMs)” at 2020 Workshop on Scale and Spatial Analytics hosted by the Spatial Analysis Research Center (ASU) in Tempe, Arizona.
- Organizer & Instructor. Workshop on Multiscale Geographically Weighted Regression at the 2021 University Consortium of Geographic Information Science Annual Symposium.
- Co-organizer. Four sessions on Urban Data Science: Methods & Models for our Changing Cities at the 2021 American Association of Geographers Annual Meeting in Seattle, Washington.
- Co-organizer. Four sessions on Urban Data Science: Methods & Models for our Changing Cities at the 2020 American Association of Geographers Annual Meeting in Denver, Colorado.
- Participant. 2020 Workshop on Scale and Spatial Analytics hosted by the Spatial Analysis Research Center (ASU) in Tempe, Arizona.
- Co-organizer. Seven sessions on Urban Data Science: Methods & Models for our Changing Cities at the 2019 American Association of Geographers Annual Meeting in Washington, D.C..
- Panelist. Session on *Future of Open Source Package of Spatial Analysis – PySAL* scheduled for the 2018 American Association of Geographers Annual Meeting in New Orleans, Louisiana.
- Co-chair and co-organizer. Double session on *Advances in Spatial Interaction Modeling and Methods in the Big Data Era* scheduled for the 2018 American Association of Geographers Annual Meeting in New Orleans, Louisiana.
- Participant. 2015 Workshop on *Advanced Scientific Computing with Python* in Munich, Germany.

## **Outreach**

Carto Spatial Data Science Community Call (May, 2017)

## **TEACHING EXPERIENCE**

**University of Maryland, College Park**

- GEOG 276: Introduction to Python Programming & Geocomputing (Fall 2022 – 34 students)
- GEOG 376: Programming & Geospatial Analysis (Spring 2022 – 10 students)
- GEOG 276: Introduction to Python Programming & Geocomputing (Fall 2021 – 24 students)
- GEOG 498G/788P: Models & Methods for Spatial Data Science (Fall 2021 – 14 students)
- GEOG 376: Introduction to programming for GIS (Spring 2021 – 28 students)
- GEOG 276: Introduction to Python Programming & Geocomputing (Fall 2020 – 14 students)
- GEOG 498G/788P: Models & Methods for Spatial Data Science (Fall 2020 – 12 students)
- GEOG 376: Introduction to programming for GIS (Spring 2020 – 47 students)
- GEOG 498G/788P: Models & Methods for Spatial Data Science (Fall 2019 – 7 students)

### **Arizona State University**

- GIS 598: Local Statistical Modeling (teaching assistant)
- Workshop on Geographically weighted regression (prepare and lead labs)
- GIS 205: Introduction to Geospatial Technologies (Summer B 2015 – online instruction)
- GIS 205: Introduction to Geospatial Technologies (Summer A 2015 – online instruction)



Taylor M. Oshan, Ph.D.  
November 11<sup>th</sup>, 2022

### **REFERENCES**

#### Reference 1:

- Name: A. Stewart Fotheringham
- Position: Regent's Professor of Computational Spatial Science and Director, Spatial Analysis Research Center, (SPARC)
- Organization: Arizona State University
- Email: [sfotheri@asu.edu](mailto:sfotheri@asu.edu)

#### Reference 2:

- Name: Sergio Rey
- Position: Professor and Founding Director, Center for Open Geographical Science
- Organization: University of California, Riverside
- Email: [sergio.rey@ucr.edu](mailto:sergio.rey@ucr.edu)

#### Reference 3:

- Name: Levi J. Wolf
- Position: Senior Lecturer (Associate Professor) in Quantitative Human Geography
- Organization: University of Bristol
- Email: [levi.john.wolf@bristol.ac.uk](mailto:levi.john.wolf@bristol.ac.uk)