Rui Zhu

Curriculum Vitae

(Last Update: January 5th, 2022)

3512 Phelps Hall
Center for Spatial Studies
University of California, Santa Barbara
Santa Barbara, CA 93106

Tel: (412)-577-8888
E-mail: ruizhu@geog.ucsb.edu
Website: `www.geog.ucsb.edu/~zhu`

EMPLOYMENT

Postdoctoral Scholar
University of California, Santa Barbara   January 2021 - present

Graduate Student Researcher
University of California, Santa Barbara   July 2015 - December 2020

Lecturer
University of California, Santa Barbara   July 2019 - September 2019

Lecturer
University of California, Santa Barbara   July 2018 - September 2018

Geospatial Data Science Research Intern
Oak Ridge National Laboratory   July 2017 - September 2017

Graduate Teaching Assistant
University of California, Santa Barbara   September 2014 - July 2015

Graduate Research Assistant
University of Pittsburgh   August 2012 - December 2013

EDUCATION

Ph.D., Geography
University of California, Santa Barbara (UCSB), Santa Barbara, CA   2014 - 2020

- Specialization: spatial statistics, geospatial semantics, GeoAI
- Committee: Krzysztof Janowicz, Phaedon Kyriakidis, Keith Clarke

M.S., Information Sciences
University of Pittsburgh (PITT), Pittsburgh, PA   2012 - 2013

- Specialization: geoinformatics
- Committee: Hassan Karimi, Stephen Hirtle

Bachelor's Degree in Management
Shanxi University of Finance and Economics, Taiyuan, China   2008 - 2012

- Specialization: information management and information science

PUBLICATIONS

Peer-Reviewed Journal Articles

- Mai, G., Janowicz, K., Hu, Y., Gao, S., Yan, B., **Zhu, R.**, Cai, L., and Lao, N. (2021). A review of location encoding for GeoAI: Methods and applications. *International Journal of Geographic Information Science (accepted).*

- Mai, G., Janowicz, K., Cai, L., **Zhu, R.**, Regalia, B., Yan, B., and Shi, M. (2020). SE-KGE: A location-aware knowledge graph embedding model for geographic question answering and spatial semantic lifting. *Transactions in GIS*, 24(3), 623-655.

- Cai, L., Janowicz, K., Mai, G., Yan, B., and **Zhu, R.** (2020). Traffic transformer: Capturing the continuity and periodicity of time series for traffic forecasting. *Transactions in GIS*, 24(3), 736-755.

- Li, Z., Zhang, X., **Zhu, R.**, Zhang, Z., and Weng Z. (2020). Integrating data-to-data correlation into inverse distance weighting. *Computational Geosciences*, 24, 203-216.

- **Zhu, R.**, Janowicz, K., and Mai, G. (2019). Making direction a first-class citizen of Tobler's first law of geography. *Transactions in GIS*, 23(3), 398-416.

- Yan, B., Janowicz, K., Mai, G., and **Zhu, R.** (2019). A spatially-explicit reinforcement learning model for geographic knowledge graph summarization. *Transactions in GIS*, 23(3), 620-640.

- Li, Z., Zhang, X., Clarke, K. C., Liu, G., and **Zhu, R.** (2018). An automatic variogram modeling method with high reliability fitness and estimates. *Computers & Geosciences*, 120, 48-59.

- Davis, A. W., McBride, E. C., Janowicz, K., **Zhu, R.**, and Goulias, K. G. (2018). Tour-based path analysis of long-distance non-commute travel behavior in California. *Transportation research record*, 2672(49), 1-11.

- **Zhu, R.**, Hu, Y., Janowicz, K., and McKenzie, G. (2016). Spatial signature for geographic feature types: Examining gazetteer ontologies using spatial statistics. *Transactions in GIS*, 20(3), 333-355.

- **Zhu, R.**, and Karimi, H. A. (2014). Automatic selection of landmarks for navigation guidance. *Transactions in GIS*, 19(2), 247-261.

- Karimi, H. A., Jiang, M., and **Zhu, R.** (2013). Pedestrian navigation services: Challenges and current trends. *Geomatica*, 67(4), 259-271.

Peer-Reviewed Journal Articles (in revision & under review - only first-authored are listed)

- **Zhu, R.**, Janowicz K., Cai L., and Mai G., (2021). Reasoning over higher-order qualitative spatial relations via neural networks. *International Journal of Geographic Information Science.* (in revision)

- **Zhu, R.**, Janowicz K., Mai G., Cai L., and Shi M., (2021). COVID-Forecast-Graph: An open knowledge graph for consolidating COVID-19 forecasts and economic indicators. *Scientific Data.* (under review)

Peer-Reviewed Conference/Workshop Articles

- **Zhu, R.**, Shimizu, C., Stephen, S., Zhou, Lu., Cai, L., Mai, G., Janowicz, K., Schildhauer, M., and Hitzler, P. (2021). SOSA-SHACL: Shapes constraint for the Sensor, Observation, Sample, and Actuator ontology. *In: Proceedings of 10th International Joint Conference on Knowledge Graphs*, December 6-8th, 2021, online (in press)

- Shimizu, C., **Zhu, R.**, Mai, G., Fisher, C., Cai, L., Schildhauer, M., Janowicz, K., Hitzler, P., Zhou, L., and Stephen, S. (2021). A pattern for features on a hierarchical spatial grid. *In: Proceedings of 10th International Joint Conference on Knowledge Graphs*, December 6-8th, 2021, online (in press)

- **Zhu, R.**, Cai, L., Mai, G., Shimizu, C., Fisher, C., Janowicz, K., Loptz-Carr, A., Schroeder, A., Schildhauer, M., Tian, Y., Stephen, S., and Liu, Z., (2021). Providing humanitarian relief support through knowledge graphs. *In: Proceedings of 11th International Conference on Knowledge Capture*, December 2-3th, 2021, online.

- Cai, L., Janowicz, K., Yan, B., **Zhu, R.**, and Mai, G. (2021). Time in a box: Advancing knowledge graph completion with temporal scopes. *In: Proceedings of 11th International Conference on Knowledge Capture*, December 2-3th, 2021, online. **(Best Paper Award)**

- **Zhu, R.**, Ambrose, S., Zhou, L., Shimizu, C., Mai, G., Janowicz, K., Hitzler, P., and Schildhauer, M. (2021). Environmental observations in knowledge graphs. *In: Proceedings of 2nd Workshop on Data and Research Objects Management for Linked Open Science,* October 24th, 2021, online.

- Shimizu, C., **Zhu, R.**, Mai, G., Schildhauer, M., Janowicz, K., and Hitzler, P. (2021). A pattern for modeling causal relations between events. *In: Proceedings of 12th Workshop on Ontology Design and Patterns,* October 24th, 2021, online.

- Lafia, S., **Zhu, R.**, and Regalia, B. (2021). Reimagining GIS instruction through concept-based learning. *In: Proceedings of AGILE 2021.* June 8 - 11, 2021, Crete, Greece.

- Mai, G., Janowicz, K., **Zhu, R.**, Cai, L., and Lao, N. (2021). Geographic question answering: Challenges, uniqueness, classification, and future directions. *In: Proceedings of AGILE 2021.* June 8 - 11, 2021, Crete, Greece.

- Shi, M., Janowicz, K., Cai, L., Mai, G., and **Zhu, R**. (2021). A socially aware Huff model for destination choice in nature-based tourism. *In: Proceedings of AGILE 2021.* June 8 - 11, 2021, Crete, Greece.

- Mai, G., Janowicz, K., Yan, B., **Zhu, R.**, Cai, L., and Lao, N. (2020). Multi-scale representation learning for spatial feature distributions using grid cells. *In: Proceedings of International Conference on Learning Representations (ICLR 2020).* April 26 - 30, 2020, Addis Ababa, Ethiopia.

- **Zhu, R.**, McKenzie, G., and Janowicz, K. (2019). Are streets indicative of place types? *In: Proceedings of Geographical and Cultural Aspects of Geoinformation: Issues and Solutions.* June 17 - 20, 2019, Limassol, Cyprus.

- Mai, G., Janowicz, K., Yan, B., **Zhu, R.**, Ling, C., and Lao, N. (2019). Contextual graph attention for answering logical queries over incomplete knowledge graphs. *In: Proceedings of 10th International Conference on Knowledge Capture.* November 19 - 21, 2019, Los Angeles, CA.

- Cai, L., Janowicz, K., Yan, B., Mai, G., and **Zhu, R.** (2019). TransGCN: coupling transformation assumptions with graph convolutional networks for link prediction. *In: Proceedings of 10th International Conference on Knowledge Capture.* November 19 - 21, 2019, Los Angeles, CA. **(Best Paper Award)**

- Mai, G., Yan, B., Janowicz, K., and **Zhu, R.** (2019). Relaxing unanswerable geographic questions using a spatially explicit knowledge graph embedding model. *In: Proceedings of AGILE 2019.* June 17 - 20, 2019, Limassol, Cyprus. **(Best Paper Award)**

- Yan, B., Janowicz, K., Mai, G., and **Zhu, R.** (2018). xNet+SC: Classifying places based on images by incorporating spatial contexts. *In: Proceedings of GIScience 2018: 10th International Conference on Geographic Information Science.* August 28 - 31, 2018, Melbourne, Australia.

- Mai, G., Janowicz, K., Hu Y., Gao S., **Zhu, R.**, Yan, B., McKenzie, G., and Uppal, A., and Regalia, B. (2018). Collections of points of interest: How to name them and why it matters? *In: Proceedings of Spatial big data and machine learning in GIScience Workshop at GIScience 2018.* August 28 - 31, 2018, Melbourne, Australia.

- Janowicz, K. Yan, B, Regalia, B., **Zhu, R.**, and Mai, G. (2018). Debiasing knowledge graphs: Why female presidents are not like female popes. *In: Proceedings of International Semantic Web Conference 2018.* October 8 - 12, 2018, Monterey, CA.

- **Zhu, R.**, Kyriakidis, P. C., and Janowicz, K. (2017). Beyond pairs: Generalizing the geo-dipole for quantifying spatial patterns in geographic fields. *In A. Bregt, T. Sarjakoski, R. van Lammeren, & F. Rip (Eds.), Societal Geo-innovation: Selected Papers of the 20th AGILE Conference on Geographic Information Science. Lecture Notes in Geoinformation and Cartography (pp.331-348).* Cham, Switzerland: Springer. **(Best Paper Award)**

- Janowicz, K., Hu, Y., McKenzie, G., Gao, S., Regalia, B., Mai, G., **Zhu, R.**, Adams, B., and Taylor, K. (2016). Moon landing or safari? A study of systematic errors and their causes in geographic Linked Data. *In: Proceedings of the 9th International Conference on Geographic Information Science (GIScience 2016).* September 27 - 30, Montreal, Canada.

- **Zhu, R.**, Janowicz, K., Yan, B., and Hu, Y. (2016). Which Kobani? A case study on the role of spatial statistics and semantics for coreference resolution across gazetteers. *In: GIScience 2016 Short Paper Proceedings. 9th International Conference on Geographic Information Science.* September 27 - 30, Montreal, Canada.

- Gao, S., **Zhu, R.**, and Mai, G. (2016). Identifying local spatiotemporal autocorrelation patterns of taxi pick-ups and drop-offs. *In: GIScience 2016 Short Paper Proceedings. 9th International Conference on Geographic Information Science.* September 27 - 30, Montreal, Canada.

Peer-Reviewed Book Chapters

- **Zhu, R.** (2021). Directional operations. In J. P. Wilson (Eds), *The Geographic Information Science & Technology Body of Knowledge*, University Consortium for Geographic Information Science.

- Janowicz, K., McKenzie, G., Hu, Y., **Zhu, R.**, and Gao, S. (2019). Using semantic signatures for social sensing in urban environments. In C. Antoniou, L. Dimitriou, and F. Pereira (Eds) *Mobility patterns, big data and transport analytics*, 31-54, Elsevier.

Workshop/Symposium Short Papers & Extended Abstracts

- **Zhu, R.** (2019). Spatial data science: Fundamentals, uncertainty, and interpretability. *2019 Spatial Data Science Symposium.* December 9 - 11, 2019, Santa Barbara, CA.

- **Zhu, R.** (2019). A high-order statistical approach to understand urban structures. *2019 Location-based Big Data Symposium, in conjunction with the 29th International Cartographic Conference.* July 15 - 20, 2019, Tokyo, Japan.

- **Zhu, R.**, and Janowicz, K. (2018). Adopting semantic signatures to quantify the uncertainty of volunteered geographic information. *13th International Symposium of Spatial Accuracy.* May 21 - 25, 2018, Beijing, China. (Best Student Paper Presentation Award)

- **Zhu, R.**, and Janowicz, K. (2018). Quantifying semantic uncertainties of volunteered geographic information to understand human travel behaviors. *15th International Conference on Travel Behavior Research.* July 15 - 20, 2018, Santa Barbara, CA.

- **Zhu, R.**, Janowicz, K., and Gao, S. (2017). Quantifying the attractiveness of destinations for modeling long distance travel patterns. *NSF Mobility Science Workshop.* May 11 - 12, 2017, Columbus, OH.

GRANTS

- "Local aspect of the global research" (Co-PI, $20,000) 2021
  Esri Inc.

- "Data-driven drought effect estimation" (Co-PI, $25,000) 2016-2017
  NSF National Socio-Environmental Synthesis Center (SESYNC)

PROFESSIONAL PRESENTATIONS

- Providing Humanitarian Relief Support through Knowledge Graphs. *11th International Conference on Knowledge Capture.* December 3, 2021, online. *(oral presentation)*

- Environmental Observations for Knowledge Graphs. *2nd Workshop on Data and Research Objects Management for Linked Open Science, in conjunction with the 20th International Semantic Web Conference.* October 24, 2021, online. *(oral presentation)*

- A High-order Statistical Approach to Understand Urban Structures. *2019 Location-based Big Data Symposium, in conjunction with the 29th International Cartographic Conference.* July 15, 2019, Tokyo, Japan. *(oral presentation)*

- Making Direction a First-class Citizen of Tobler's First Law of Geography. *2019 Esri Users Conference: Frontiers in GIScience.* July 9, 2019, San Diego, California, CA. *(oral presentation)*

- A Spatially-Explicit Reinforcement Learning Model for Geographic Knowledge Graph Summarization. *2019 Esri Users Conference: Advances in GIScience.* July 9, 2019, San Diego, California, CA. *(oral presentation)*

- Relaxing Unanswerable Geographic Questions Using a Spatially Explicit Knowledge Graph Embedding Model. *22nd Conference on Geo-information Science.* June 20, 2019, Limassol, Cyprus. *(oral presentation)*

- Are Streets Indicative of Place Types? *GeoCultGIS Workshop.* June 17, 2019, Limassol, Cyprus. *(oral presentation)*

- Understanding Semantic Uncertainty in Volunteered Geographic Information. *2019 Annual Meeting of AAG (GIScience in the Post-Truth Era).* April 5, 2019, Washington DC. *(oral presentation)*

- The Three-body Problem in Geography. *2019 Annual Meeting of AAG (Reckless Ideas in Geography and GIScience).* April 6, 2019, Washington DC. *(oral presentation and panel discussant)*

- Quantifying Semantic Uncertainties of Volunteered Geographic Information to Understand Human Travel Behaviors. *15th International Conference on Travel Behavior Research.* July 15, 2018, Santa Barbara, CA. *(oral presentation)*

- Adopting Semantic Signatures to Quantify the Uncertainty of Volunteered Geographic Information. *13th International Symposium of Spatial Accuracy.* May 22, 2018, Beijing, China. *(oral presentation)*

- Utilizing Multiple-point Geostatistics to Model Higher-order Geospatial interactions. *2018 Annual Meeting of AAG.* April 12, 2018, New Orleans, LA. *(oral presentation)*

- Quantifying the Attractiveness of Destinations for Modeling Long Distance Travel Patterns. *NSF Mobility Science Workshop.* May 12, 2017, Columbus, OH. *(oral presentation)*

- From the Geo-dipole to the Geo-multipole: A Framework of Applying Multiple-Point (Geo)Statistics for Geographic Field Analysis. *2017 Annual Meeting of AAG.* April 7, 2017, Boston, MA. *(oral presentation)*

- IChing and Geography. *2017 Spatial@UCSB Lightning Talks.* February 28, 2017, Santa Barbara, CA. *(lightning talk)*

- Which Kobani? A Case Study on the Role of Spatial Statistics and Semantics for Coreference Resolution Across Gazetteers. *9th International Conference in Geographic Information Science.* September 28, 2016, Montreal, Canada. *(poster presentation)*

- Understanding the Semantics of Places in Gazetteers via Spatial Analysis. *2016 Annual Meeting of AAG.* March 30, 2016, San Francisco, CA. *(oral presentation)*

- Spatial Signatures for Geographic Feature Types: Examining Gazetteer Ontologies using Spatial Statistics. *2016 Esri User Conference: GIScience Frontier Research Session.* June 28, 2016, San Diego, CA. *(oral presentation)*

- Spatial Signatures for Geographic Feature Types: Examining Gazetteer Ontologies using Spatial Statistics. *12th Semantic Web Summer School.* July 19, 2016, Bertinoro, Italy. *(poster presentation)*

AWARDS

- *Best Paper Award*   December, 2021
  11th International Conference on Knowledge Capture (K-CAP 2021),online
- *Jack and Laura Dangermond Graduate Research Fellowship Award*   May, 2020
  Department of Geography, UC Santa Barbara, Santa Barbara, CA
- *Best Paper Award*   November, 2019
  10th International Conference on Knowledge Capture (K-CAP 2019), Los Angeles, CA
- *Best Paper Award*   June, 2019
  22th International Conference on Geo-Information Science (AGILE 2019), Limassol, Cyprus
- *Best Student Presentation Award*   May, 2018
  13th International Symposium of Spatial Accuracy, Beijing, China
- *Graduate Research Fellow*   August, 2017
  NSF National Socio-Environmental Synthesis Center (SESYNC), Annapolis, MD
- *Best Paper Award*   May, 2017
  20th International Conference on Geo-Information Science (AGILE 2017), Wageningen, Netherlands

FELLOWSHIPS & TRAVEL GRANTS

- UCSB 2019-2020 doctoral student travel grant, Summer 2019
- Jack Dangermond travel grant for the 29th International Cartographic Conference, Summer 2019
- Jack Dangermond travel grant for 2019 Esri Users Conference, Summer 2019
- Esri AGILE 2019 student travel award, Summer 2019
- Jack Dangermond travel grant for the 22nd Conference on Geo-information Science, Summer 2019
- UCSB Graduate Student Association travel award, Spring 2019
- Jack Dangermond travel grant for AAG, Spring 2019
- Jack Dangermond travel grant for the International Semantic Web Conference (ISWC), Fall 2018
- UCSB Research Mentoring Program (RMP) fellowship, Summer 2018
- Student travel award of the 15th International Conference on Travel Behavior Research, Summer 2018
- Student travel award of the 13th International Symposium of Spatial Accuracy, Spring 2018
- Jack Dangermond travel grant for the 13th International Symposium of Spatial Accuracy, Spring 2018
- Jack Dangermond travel grant for AAG, Spring 2018
- NSF travel grant for the workshop on Analyzing Movement and Mobility Within Geographic Context, Summer 2017
- UCSB Graduate Student Association travel award, Spring 2017
- NSF travel grants for Graduate Pursuits at the National Socio-Environmental Synthesis Center (SESYNC), August 2016, January 2017, April 2017
- Jack Dangermond travel grant for AAG, Winter 2017
- Jack Dangermond travel grant for GIScience 2016, Fall 2016
- Jack Dangermond travel grant for AAG, Winter 2016
- Jack Dangermond travel grant for the 12th Semantic Web Summer School, Summer 2016

TEACHING

- *Guest Lecturer*   Winter 2020
  GEOG 176B: Technical Issues in GIS / Spatial Data, UCSB

- *Lecturer*   Summer 2019
  GEOG 176A: Introduction to GIS, UCSB

- *Lecturer*   Summer 2018
  GEOG 176A: Introduction to GIS, UCSB

- *Guest Lecturer*   Spring 2019, Spring 2018, Spring 2017
  GEOG 176C: GIS Applications, UCSB

- *Guest Lecturer*   Winter 2017
  GEOG 178/258: Conceptual Modeling and Programming for the Geo-Sciences, UCSB

- *Teaching Assistant*   Spring 2017
  GEOG 176C: GIS Applications, UCSB

- *Teaching Assistant*   Winter 2016
  GEOG 178/258: Conceptual Modeling and Programming for the Geo-Sciences, UCSB

- *Teaching Assistant*   Fall 2015, Fall 2014
  GEOG 176A: Introduction to GIS, UCSB

- *Teaching Assistant*   Summer 2015
  GEOG 176A: Introduction to GIS, UCSB

- *Teaching Assistant*   Spring 2015
  GEOG 172: Intermediate Geographical Data Analysis, UCSB

- *Teaching Assistant*   Winter 2015
  GEOG 3A: Ocean and Atmosphere, UCSB

PROFESSIONAL SERVICES

Peer Reviewer for Academic Journals
- International Journal of Geographic Information Science
- Applied Geography
- The Professional Geographer
- Transactions in GIS
- Journal of Spatial Information Science
- Annals of the American Association of Geographers
- ISPRS International Journal of Geo-Information
- International Journal of Geospatial Environmental Research
- IEEE Transactions on Engineering Management
- International Regional Science Review
- Annals of GIS

- Scientific Reports
- Semantic Web Journal
- Journal of Location Based Service

Guest Editorial Board
- Semantic Web Journal: Special Issue on Semantic Web for the Global Food System
- Transactions in GIS: Special Issue on Methods, Models and Resources for Geospatial Knowledge and GeoAI

Community Services
- **Program Committee**: 19th Extended Semantic Web Conference (ESWC 2022), May 29-June 2, 2022, Hersonissos, Greece
- **Program Chair**: 2nd Spatial Data Science Symposium (SDSS 2021), December 13-14, 2021, online
- **Virtual Conference Chair**: 11th International Conference on Knowledge Capture (K-CAP 2021), December 2-3, 2021, online
- **Program Committee**: 11th International Conference on Geographic Information Science (GIScience 2021), September 27-30, 2021, online
- **Program Committee**: 1st International Workshop on Methods, Models, and Resources for Geospatial Knowledge Graphs and GeoAI (GeoKG'21), September 26, 2021, online
- **Program Committee**: 12th Workshop on Ontology Design and Patterns (WOP 2021), October 24, 2021, online
- **Organizer**: 14th spatial@ucsb.global - Geography for the Upcoming Generation: Its Role in Contributing to a Sustainable Future, June 2, 2021, online
- **Program Committee**: 18th Extended Semantic Web Conference (ESWC 2021), June 6-10, 2021, online
- **Chair**: Center for Spatial Studies at UCSB - 2021 Annual Spatial Lightning Talks, March 16, online
- **Judge Committee**: 2020 Mapping Horizons Competition - Tackling Crisis Through Geospatial Impact, online
- **Steering Committee**: International Geographical Union Task Force for Young & Early Career Geographers (IGU-YECG), 2020 - 2024
- **Program Committee**: 19th International Semantic Web Conference, November 2-4, 2020, Virtual Conference
- **Program Committee**: 17th Extended Semantic Web Conference (ESWC 2020), May 31-June 4, 2020, Crete, Greece
- **Program Committee**: 3rd GeoAI and Deep Learning Symposium, AAG 2020, April 6-20, 2020, Denver, CO
- **Lead Organizer**: 3rd GeoAI and Deep Learning Symposium: Deep Learning of Geospatial Patterns & Applications, AAG 2020, April 6-20, 2020, Denver, CO
- **Program Committee**: 1st International Conference on Spatial Data Intelligence (SpatialDI 2020), March 27-18, 2020, Shenzhen, China
- **Student Organizer**: Spatial Data Science Symposium 2019, December 9-11, 2019, Santa Barbara, CA
- **Chair**: 2nd GeoAI and Deep Learning Symposium: Deep Learning of Geospatial Patterns & Applications, AAG 2019, April 6, 2019, Washington DC
- **Program Committee**: 16th Extended Semantic Web Conference (ESWC 2019), June 2-6, 2019, Portoroz, Slovenia
- **Student Director**: AAG Geographic Information Science and Systems (GISS) Specialty Group, 2018-2019

- **Committee**: GISS Specialty Group Student Paper Competition, AAG 2019, April 5, 2019, Washington, DC
- **Local Committee**: 8th International Conference on the Internet of Things (IoT 2018), October 15-18, 2018, Santa Barbara, CA
- **Chair**: Fundamentals of Machine Learning Workshop at the 15th International Conference on Travel Behavior Research, July 16, 2018, Santa Barbara, CA
- **Lead Organizer**: 1st GeoAI and Deep Learning Symposium: Deep Learning of Geospatial Patterns & Applications, AAG 2018, April 14, 2018, New Orleans, LA
- **Lead Organizer**: Session of Uncertainties in Spatial Patterns, AAG 2017, April 7, 2017, Boston, MA
- **Local Committee**: SPATIAL 2015, Center for Spatial Studies@UCSB, December 9-11, 2015, Santa Barbara, CA

Department Services
- **Faculty Representative Committee**: UCSB Geography Department, 2019-2020
- **Event Committee**: UCSB Geography Department, 2015-2017
- **Outreach Committee**: UCSB Geography Department, 2014-2015

Community Membership
- International Spatial Accuracy Research Association
- International Association of Mathematical Geosciences (IAMG)
- Association of American Geographers (AAG)
- International Association of Chinese Professionals in Geographic Information Sciences (CPGIS)