

Ruopu Li

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EDUCATION

- 2007-2012** **Ph.D.** in Natural Resource Sciences, University of Nebraska-Lincoln, Lincoln, NE
Specialty: GIS; Advisers: Prof. James W. Merchant & Prof. Xun-Hong Chen
- 2004-2007** **M.E.** in Environmental Science, Tianjin University, Tianjin, China
- 2000-2004** **B.S.** in Environmental Science, Nankai University, Tianjin, China

WORK EXPERIENCE

- Aug. 2015-present** *Assistant Professor*, Department of Geography and Environmental Resources, Southern Illinois University-Carbondale (SIUC), Carbondale, IL
- Nov. 2013-Aug. 2015** *Integrated Water Management Analyst*, Nebraska Department of Natural Resources (NeDNR), Lincoln, NE
- Jun. 2012-present** *Adjunct Assistant Professor*, School of Natural Resources (SNR), University of Nebraska-Lincoln (UNL), Lincoln, NE
- Feb. 2012-Nov. 2013** *Integrated Water Management Specialist*, NeDNR, Lincoln, NE
- Spring 2011** *Graduate Teaching Assistant*, SNR, UNL, Lincoln, NE
- 2007-2011** *Graduate Research Assistant*, SNR, UNL, Lincoln, NE

TEACHING/RESEARCH INTERESTS

- Interests** Geospatial analysis & remote sensing, Water resource planning & management, Land use modeling, Nature-Human Interactions, Groundwater modeling, Impacts of climate change and variability, Biomass and bioenergy, Social media, UAVs
- Software** ArcGIS, MODFLOW, Python, R, C, QGIS, MATLAB, SPSS, ENVI, eCognition, Nvivo

PUBLICATIONS

In Review

1. Li, R.*, K. Chen, and D. Wu. Challenges and Opportunities to Cope with Smart Divide in Rural America. **Annals of the American Association of Geographers** (under revision)

2. Li, R.*, M.M. Rahaman, L. Zhao, Z. Tang. Assessing Social Media Communication of Local Governments in Fast-growing U.S. Cities. **Applied Geography** (under revision)
3. Crowe, J., R. Li*. Geosocial Perception of Nonrenewable and Renewable Energy: A Case Study for Three U.S. Regions. **Energy Research & Social Science** (under revision)
4. Alam, S., M. Gebremichael, R. Li, J. Dozier, D.P. Lettenmaier. Climate Change Impacts on Future Groundwater Storage in Central Valley, California. **Climate Change** (under review)
5. Yan, X. W. Dong, R. Li, L. Cui, G. Zhu. Assessment and Validation of Confined Aquifer Vulnerability based on VEBHAT Method: A Case Study in Heilongjiang Province of Northeastern China. **Hydrogeology Journal** (under revision)

Referred Book

1. Li, R. and A. Monti (Eds.). 2018. Land Allocation for Biomass Crops: Challenges and Opportunities with Changing Land Use, **Springer**. ISBN: 978-3-319-74535-0.

Book Chapter and Other Publications

1. Li, R. 2016. Assessing Groundwater Pollution Risks in Response to Climate Change and Variability. Chapter 2, pp. 31-50. In **Emerging Issues in Groundwater Resources** (A. Fares, ed.), **Springer**. ISBN: 978-3-319-32006-9.
2. Li, R., K. Holtsclaw, M. Brown, B. Polk. 2017. Shawnee National Forest Equestrian and Hiking Trail Map (West Side). Published by the Friends of Shawnee National Forest (1,000 copies).

Referred Articles (+ student advisee, * corresponding author)

1. Wang, Q.⁺, H. Sun, R. Li, G. Wang. 2019. A Stochastic Geostatistical Algorithm for Image Classification: Feature-Space Indicator Simulation. **ISPRS Journal of Photogrammetry and Remote Sensing** (in press).
2. Yu, H., X. Liu, B. Kong, R. Li, G. Wang. 2019. Landscape Ecology Development Supported by Geospatial Technologies: A Review. **Ecological Informatics**. 51, 185-192.
3. Wu, D.⁺, R. Li*, F. Zhang, J. Liu. 2019. A Review on Drones-based Harmful Algae Blooms Monitoring. **Environmental Monitoring and Assessment**. 191:211. 10.1007/s10661-019-7365-8.
4. Yu, H., R. Li, G. Wang, Q. Wang. 2019. Current Development of Landscape Geochemistry with Support of Geospatial Technologies: A Review. **Critical Reviews in Environmental Science and Technology**. 10.1080/10643389.2018.1558890.
5. Zhang, Z., H. Hu, D. Yin, S. Kashem, R. Li, H. Cai, D. Yin, D. Perkins, S. Wang. 2018. A CyberGIS-enabled Multi-Criteria Spatial Decision Support System: A Case Study on Flood Emergency Management. **International Journal of Digital Earth**. 10.1080/17538947.2018.1543363.
6. Li, R., G. Ou, M. Pun, L. Larson. 2018. Evaluation of Groundwater Resources in Response to Agricultural Management Scenarios in the Central Valley, California. **Journal of Water Resources Planning and Management**. 144(12), 10.1061/(ASCE)WR.1943-5452.0001014.
7. Li, R.* J. Chen⁺. 2018. Planning the Next-Generation Biofuel Crops Based on Soil-Water Constraints. **Biomass and Bioenergy**. 115, 19-26.

8. Rijal, S., G. Wang, P.B. Woodford, H.R. Howard, J.M.S. Hutchinson, S. Hutchinson, J. Schoof, T. Oyana, R. Li, L.O. Park. 2018. Detection of Gullies in Fort Riley Military Installation Using LiDAR Derived High Resolution DEM. **Journal of Terramechanics**. 77, 15-22.
9. Pun, M. D. Mutiibwa, R. Li. 2017. Land Use Classification: A Surface Energy Balance and Vegetation Index Application to Map and Monitor Irrigated Lands. **Remote Sensing**. 9(12), 1256.
10. Li, R.* and K. Holtsclaw⁺. 2017. Geocoding Locations of Historic Reclamation Research Sites Using Google Earth. **Journal of the American Society of Mining and Reclamation**. 6(2): 84-92.
11. Wang, T., T.E. Franz, R. Li, J. You, M. Shulski, C. Ray. 2017. Analysis of effects of climate and soil on regional soil moisture spatial variability using EOFs in a semiarid region. **Water Resources Research**. 53 (4), 4022–4035.
12. Wang, T., Q. Liu, T.E. Franz, R. Li, T. Lang and C.A. Fiebrich, 2017. Spatial Patterns of Soil Moisture from Two Regional Monitoring Networks in the United States. **Journal of Hydrology**. 552: 578-585.
13. Xiang, J.⁺, R. Li*, G. Wang, Q. Wang, G., L. Xu, M. Zhang, and M. Tang. 2017. Modeling Urban PM_{2.5} Concentration by Combining Regression Modeling and Spectral Unmixing Analysis in a Region of Eastern China. **Water, Air, & Soil Pollution**. 228:250.
14. Kang, J., L. Zhao, R. Li, H. Mo, and Y. Li. 2017. Groundwater Vulnerability Assessment based on Modified DRASTIC Model: A Case Study in Changli County, China. **GeoCarto International**, 32(7): 749–758.
15. Rijal, S., G. Wang, P. Woodford, H. Howard, J. Schoof, T. Oyana, L. Park, R. Li. 2017. Comparison of Military and Non-military Land Condition Using an Image Derived Soil Erosion Cover Factor. **Journal of Soil and Water Conservation**. 72(5): 425-437.
16. Tang, Z., Y. Li, Y. Gu, W. Jiang, Y. Xue, T. LaGrange, A. Bishop, J. Drahota, R. Li. 2016. Assessing Nebraska Playa Wetland Inundation Status during 1985-2015 Using the Landsat Data and Google Earth Engine. **Environmental Monitoring and Assessment**. 188: 654.
17. Li, R.*, M. Pun, and D. Mutiibwa. 2016. Classification of Irrigated and Non-Irrigated Cropland Using Object-based Image Analysis: A Case Study in South-Central Nebraska. **Proceeding of 2016 Fifth International Conference on Agro-Geoinformatics**. doi: 10.1109/Agro-Geoinformatics.2016.7577619.
18. Li, R.*, M. Pun, J. Bradley, G. Ou, J. Schneider, B. Flyr, and S. Chinta. 2016. Evaluating Hydrologically Connected Surface Water and Groundwater Using a Groundwater Model. **JAWRA Journal of the American Water Resources Association**, 52(3): 799-805.
19. Ou, G., R. Li*, M. Pun, C. Osborn, J. Bradley, J. Schneider, and X. Chen. 2016. A MODFLOW Package to Linearize Stream Depletion Analysis. **Journal of Hydrology**, 532: 9-15.
20. Li, R.*, J. Merchant and X. Chen. 2014. A Geospatial Approach for Assessing Groundwater Vulnerability to Nitrate Contamination in Agricultural Settings. **Water, Air, & Soil Pollution**, 225(12): 2214.
21. Miller, A. ⁺ and R. Li*. 2014. A Geospatial Approach for Prioritizing Wind Farm Development in Northeast Nebraska, USA. **ISPRS International Journal of Geo-Information**, 3(3), 968-979.

22. Feng, S., Q. Hu, W. Huang, C. Ho, R. Li, and Z. Tang. 2014. Projected Climate Regimes Shift under Future Global Warming from Multi-model, Multi-scenarios CMIP5 simulations. **Global and Planetary Change**, 112, 41-52.
23. Tang, Z., R. Li, X. Li, W. Jiang, and A. Hirsh. 2014. Capturing LiDAR-Derived Hydrologic Spatial Parameters to Evaluate Playa Wetlands. **JAWRA Journal of the American Water Resources Association**, 50 (1): 234–245.
24. Li, R., Z. Tang and X. Li. 2013. Drainage Structure Dataset and its Effects on LiDAR-derived Surface Flow Modeling. **ISPRS International Journal of Geo-Information**, 2(4): 1136-1152.
25. Li, R., N. di Virgilio, Q. Guan, S Feng, and G.M. Richter, 2013. Reviewing Models of Land Availability and Dynamics for Biofuel Crops in the United States and European Union. **Biofuels, Bioproducts and Biorefining**, 7(6): 666–684.
26. Li, R.* and J. Merchant. 2013. Modeling Vulnerability of Groundwater to Pollution under Future Scenarios of Climate Change and Biofuels-related Land Use Change: A Case Study in North Dakota, USA. **Science of the Total Environment**, 447: 32–45.
27. Li, R., Q. Guan, and J. Merchant. 2012. A Geospatial Modeling Framework for Assessing Biofuels-related Land-use and Land-cover Change. **Agriculture, Ecosystems & Environment**, 161:17–26.
28. Tang, Z., X. Li, N. Zhao, R. Li, and E. F. Harvey. 2012. Developing a Restorable Wetland Index for Rainwater Basin Wetlands in South-Central Nebraska: A Multi-criteria Spatial Analysis. **Wetlands**, 32(5): 975-984.
29. Li, R., S. Liu, Q. Guan, and Y. Peng. 2011. Post-disaster Assessment of Northeastern Coastal Region for the 2011 Sendai Earthquake and Tsunami. **Proceeding of 2011 International Symposium on Water Resource and Environmental Protection (ISWREP)**, vol.3, pp.2429-2432.
30. Li, R., and L. Zhao. 2011. Vadose Zone Mapping Using Geographic Information Systems and Geostatistics: A Case Study in the Elkhorn River Basin, Nebraska, USA. **ISWREP**, vol.4, pp. 3177-3179.
31. Tang, Z., S.D. Brody, R. Li, C. Quinn, and N. Zhao, 2011, Examining Locally-Driven Climate Change Policy Efforts In Three Pacific States, **Ocean & Coastal Management**, 54: 415-426.
32. Li, R., L. Zhao, H. Tonya, and Z. Tang. 2010. Monitoring Watershed Drought Conditions through the Landsat Imagery Interpretation. **Disaster Advances**, 3(4): 40-46.
33. Ojekunle, O. Z., L. Zhao, R. Li, X. Tan, W. Lv, and H. Bangura, 2009. Ameliorating Water Crises through Sustainable Wastewater Reuse in Hengshui, China, **Journal of American Water Works Association**, 10 (101): 71-81.
34. Li, R., L. Zhao, X. Tan, W. Lv, and O.Z. Ojekunle, 2007. Sustainable Wastewater Reuse to Face Water Crisis — A Case Study in Taocheng District of Hengshui(TDH), China. **Proceedings of the World Environmental and Water Resources Congress 2007**, pp. 1-10.
35. Li, R., L. Zhao, T. Li, T. Dong, Z. Yang. 2006. Discussion on the Allocation of the Ecological Water Use Based on the Ecological Water Demand, **Ecological Economy**, 10: 50-53.

RESEARCH GRANTS

Grants Received or Completed

2018, **PI**, \$145,900 (\$74,617 for SIU), *Characterization of Groundwater Recharge Dynamics in the Unsaturated Zone Using Hydrologic Models in the Central Platte River Basin*. 06/01/2018-02/29/2020, CO-PI: Gengxin Ou, **Central Platte Natural Resources District**.

2018, **PI**, \$9,982, *Characterization of Harmful Algal Blooms Using Small Unmanned Aircraft Systems and Watershed Analysis in Southern Illinois*, 03/01/2018-02/28/2019, CO-PI: Jia Liu, Di Wu, awarded by **USGS Illinois Water Resources Center**.

2017, **PI**, \$19,573, *Developing IT Applications to Assist in Communicating Hydrogeologic Information for Public Engagement* (continuing), 12/01/2017-06/30/2017, awarded by **Nebraska Department of Natural Resources**.

2017, **PI**, \$3,190, *Geocoding Locations of Historic Reclamation Research Sites using Google Earth*, 11/01/2017-02/28/2018, awarded by **American Society of Mining Reclamation**.

2017, **PI**, \$40,527, *Social Media Footprints of Public Perception on Energy Issues and Their Policy Implications*, 07/01/2017-06/30/2018, CO-PI: Justin Schoof, Energy Boost Seed Grant awarded by **SIU Advanced Coal and Energy Research Center** (internal).

2017, **PI**, \$3,700, *Developing a Digital Trail Map for Public Access in Southern Illinois*, 04/28/2017-04/22/2018, awarded by **SIU Green Fund** (Internal).

2016, **PI**, \$49,298, *Developing IT Applications to Assist in Communicating Hydrogeologic Information for Public Engagement*, 05/01/2016-08/15/2017, awarded by **Nebraska Department of Natural Resources**.

2016, **PI**, \$2,569, *Designing a Trail Map of the West Side of the Shawnee National Forest*, 11/01/2016-05/30/2017, awarded by **Friends of the Shawnee National Forest**.

2016, **PI**, \$6,666, *Geocoding Locations of Historic Reclamation Research Sites using Google Earth*, 02/22/2016-07/31/2016, awarded by **American Society of Mining Reclamation**.

2016, **PI**, 512,000 CPU hours & 12,000 GPU hours, *Natural and Socio-economic Dynamics in Urban Land-use Change Modeling through High-performance Spatio-temporal Simulations*, CO-PI: Qingfeng Guan, awarded by **NSF/National Center for Supercomputing Applications**.

2015, **PI**, \$25,000, *Evaluation of Water Resources in Response to Management Scenarios in the Central Valley, California*, 05/01/2015-07/31/2015, awarded by **Natural Resources Defense Council**.

2014, **CO-PI**, \$153,606, *Develop a Climate-Wetland Vulnerability Assessment Model to Evaluate Playa Wetland Response to Climate Variability*, 01/01/2015-12/31/2016, PI: Zhenghong Tang, CO-PI: Ruopu Li, awarded by **U.S. Environmental Protection Agency**.

TEACHING EXPERIENCE (at the SIUC and UNL)

Spring/Fall, 2015-2019 **Instructor**, GEOG 401/502 Geographic Information Systems, SIUC

Fall, 2015-2019 **Instructor**, GEOG 420/520 Advanced GIS Studies, SIUC

Spring, 2016-2019	<i>Instructor</i> , GEOG 417/517 GIS Programming (Python), SIUC
Spring, 2016	<i>Instructor</i> , GEOG 501 Geography & Env Research Seminar, SIUC
Spring, 2013-2015	<i>Instructor</i> , GEOG 422/822 Advanced Techniques in GIS, UNL
Fall, 2014-2015	<i>Instructor</i> , GEOG 996 Non-thesis Research, UNL
Fall, 2013-2014	<i>Instructor</i> , GEOG 412/812 Introduction to GIS, UNL
Spring, 2011	<i>Teaching Assistant</i> , NRES 312 Geospatial Info. Systems, UNL

HONORS AND AWARDS

2017	Fellow for <i>UCGIS CyberGIS Summer School</i>
2015-2017	<i>SIU Faculty Startup Award</i> (\$20,800)
2010-2011	<i>Preparing Future Faculty Fellow</i> , UNL
2010	<i>Travel Award</i> (\$500), AAG Spatial Analysis and Modeling Specialty Group
2009	<i>Larrick and Whitmore Travel Award</i> (\$500), SNR, UNL
2007-2010	<i>Othmer Fellowship</i> (\$7,500/year), UNL
2007-2010	<i>School of Natural Resources Scholarship</i> (\$18,000/year), UNL

CONFERENCE PRESENTATIONS

1. Li, R., M.M. Rahama. 2019. Assessing Social Media Communications of Local Governments in Top Fast-growing U.S. Cities. AAG Annual Meeting, April 3-7, 2019, Washington D.C.
2. Li, R., D. Wu, J. Liu. 2019. Drone-based Water Quality Monitoring for Harmful Algae Blooms: A Review. 34th Annual ILMA-Lakes Conference, Mar 14-16, 2019. Crystal Lake, IL.
3. Alam, S., M. Gebremichael, R. Li, D.P. Lettenmaier, J. Dozier. 2018. Potential Impact of Climate Change on Groundwater storage in Central Valley, California. AGU Fall Meeting, Dec 10-14, 2018, Washington D.C.
4. Leifer, D. and R. Li. 2018. WebGIS Application for Visualizing Historical Reclamation Research Sites Using a Modified QGIS2Web Framework. 2018 American Society of Mining & Reclamation Conference, June 4-7, 2018, St. Louis, MO.
5. Li, R.. 2018. Understanding of Public Perception on Energy Issues Using Twitter Data Mining. AAG Annual Meeting, April 10-14, 2018, New Orleans, LA.
6. Li, R. and W. Xiong. 2017. Development of Computer Animation to Communicate Hydrogeologic Information for Public Engagement. 2017 AAG West Lake Meeting, Oct 26-28, 2017, West Plain, MO.
7. Li, R. 2017. Geocoding Locations of Historic Reclamation Research Sites using Google Earth. 2017 American Society of Mining & Reclamation Joint Conference, April 10-12, 2017, Morgantown, WV.
8. Huang, T. and R. Li. 2017. Ecological Wisdom in Marginal Agriculture Design. The Tonji-XAUAT Forum on Ecological Wisdom Inspired Urban and Rural Ecological Practice, July 6-9, 2017. Xi'an, China.

9. Li, R. and T. Huang. 2017. Enhancing the Resilience of Marginal Agricultural System: A Food-Energy-Environment Nexus Perspective. Association of American Geographers (AAG) Annual Meeting, April 5-9, 2017, Boston, MA.
10. Li, R., M. Pun, D. Mutiibwa, 2016. Classification of Irrigated and Non-Irrigated Cropland Using Object-based Image Analysis: A Case Study in South-Central Nebraska. 5th International Conference on Agro-Geoinformatics, July 18-20, 2016, Tianjin, China.
11. Li, R., M. Pun, L. Larson. 2016. Groundwater Sustainability in Response to Agricultural Management Scenarios in the Central Valley, California, AAG Annual Meeting, March 29 - April 2, 2016, San Francisco, CA.
12. Li, R., M. Pun, D. Mutiibwa, 2015. Classification of Irrigated and Non-Irrigated Land Using Remote Sensing Techniques: A Case Study in Nebraska. National Ground Water Association (NGWA) Conference on the Upper Great Plains, Sept 22-23, 2015, Cheyenne, WY.
13. Mutiibwa, D., M Pun, R. Li. 2015. Land Use Classification: A Surface Energy Balance and Vegetation Index Application to Map Irrigation in Nebraska. International Workshop on Evapotranspiration Mapping for Water Security, Sept 15-17, Washington D.C.
14. Li, R., J. Chen, Z. Tang. 2015. Planning the Next-Generation Biofuel Crops in the U.S. Corn Belt: A Land Suitability Analysis, AAG Annual Meeting, April 20-25, 2015, Chicago, IL.
15. Chen, J., R. Li. 2015. The Urban Growth and Land-use Change Simulation in Lincoln, Nebraska, AAG Annual Meeting, April 20-25, 2015, Chicago, IL.
16. Li, R., B. Flyr, M. Pun, J. Bradley, J. Schneider, J. Winter. 2014. Application of a Groundwater Modeling Tool for Managing Hydrologically Connected Area in State of Nebraska, US, American Geophysical Union (AGU) Fall Meeting, Dec 14-18. San Francisco, CA.
17. Li, R., M. Mosier, M. Pun, J. Wietjes, B. Flyr, S. Chinta, 2014. Development of a Modeling Tool for Determining Fully Appropriated Areas in Nebraska, 59th Annual Midwest Ground Water Conference, Sept 30-Oct 2, Lawrence, KS.
18. Smith, K, M. Svoboda, H Reges, D. Gutzmer, Q. Guan, C. Paulsen, R. Li, et al. 2014. The Drought Impact Reporter as a Framework for Citizen Science, American Meteorological Society 94th Annual Meeting, Feb 3. Atlanta, GA.
19. Li, R., Z. Tang, and X. Li, 2013. Drainage Structure Dataset and its Effects on Surface Flow Modeling with LiDAR. AAG Great Plains/Rocky Mountains Division Meeting. Oct 10-12, Omaha, NE.
20. Li, R., M. Pun, D. Hallum, et al., 2012. Climate Variability and Its Implications to Future Irrigation Requirement in Nebraska. NGWA Conference on Great Plains Aquifers: Beyond the Ogallala, Oct 25-26, Omaha, NE.
21. Li, R., Guan, Q., J. Leng, et al., 2012. Exploring the Relationships between Drought Intensity and Drought Impacts in the United States: A Spatio-temporal Perspective. AAG Annual Meeting, Feb 24-28, New York, NY.
22. Tang, Z., X. Li, N. Zhao, R. Li, 2012, Developing a Restorable Wetland Index for Wetland Program Planning: A Multi-Criteria Spatial Analysis, AAG Annual Meeting, February 24-28, 2012, New York, NY.

23. Guan, Q., R. Li, K. Smith, et al., 2011. A Next-generation Online Mapping Tool for Dynamic Visualization of Drought Impacts in the U.S. AAG Great Plains/Rocky Mountains Division Meeting. Oct 6-8, Denver, CO.
24. Li, R., L. Zhao, and X. Li, 2011. Integrating LiDAR Technology into Agricultural Wetland Conservation: A Case Study in the Upper Sand Creek Watershed. Water for Food 2011 Global Conference, May 1-4, Lincoln, NE.
25. Zhao, L., R. Li, Li, X., Tang, Z., 2011, Building 3-D Wetland-Agricultural Geodatabase in South Central Nebraska, Water for Food Conference, May 1-4, Lincoln, NE.
26. Li, R., J. Merchant, and Q. Guan, 2011. Understanding Groundwater Vulnerability in the Context of Future Climate Change and Biofuels-related Land Use Change. AAG Annual Meeting, April 12-16, Seattle, WA.
27. Tang, Z., X. Li, R. Li, N. Zhao, L. Zhao, 2011. Applying LiDAR Technology in Agricultural Wetland Conservation Planning in South-central Nebraska, Nebraska Planning Conference, Nebraska Planning and Zoning Association, Grand Island, Nebraska.
28. Tang, Z., X. Li, R. Li, N. Zhao, L. Zhao, R. Wilson, E. Harvey, 2011. Develop LiDAR-derived Wetland Maps and Restorable Wetland Index, Rainwater Basin Joint Venture/Playa Lake Joint Venture Research Symposium, Grand Island, Nebraska.
29. Li, R., Q. Guan, and J. W. Merchant, 2010. Modeling Biofuel Cropland Expansion in North Dakota. AAG Annual Meeting, April 14-18, Washington D.C.
30. Li, R., J. W. Merchant, X. Chen, et al., 2009. Reducing Uncertainty in Characterization of the Vadose Zone for Modeling Groundwater Vulnerability, AGU Annual Conference, Dec. 14-18, San Francisco, CA.
31. Li, R., Merchant, J., Sun, T., and Zhao, L. 2009. Standardizing Mapping of Groundwater Vulnerability Factors Using National and State-level Geospatial Databases, American Society for Photogrammetry and Remote Sensing (ASPRS) Upper Midwest Chapter Meeting. Oct. 5-7, USGS EROS Center, Sioux Falls, South Dakota.

TECHNICAL REPORTS (not peer reviewed)

1. Li, R. 2016. Geocoding Locations of Historic Reclamation Research Sites using Google Earth (1988-1997). **American Society of Mining Reclamation.**
2. Pun, M., R. Li, R. Werner, Z. Adane. 2016. Study of Groundwater System Response to Variable Climate and Water Management Alternative Scenarios in the Niobrara River Basin. **Nebraska DNR & U.S. Bureau of Reclamation.**
3. Li, R. 2015. Procedure for Determining Areas Where Surface Water and Groundwater are Hydrologically Connected. **Nebraska DNR.**
4. Li, R. and M. Pun. 2015. Evaluation of Groundwater Resources in Response to Agricultural Irrigation Management Scenarios in the Central Valley, California. **Natural Resources Defense Council.**

ADVISING & STUDENT AWARDS (at the SIUC and UNL)

Ph.D. Advisee (as Chair or Co-Chair)

- 2017-now Di Wu - Environmental Resources & Policy
- 2018 CUAHSI Summer School Award
 - 2018 Illinois Water Resources Center Small Water Grant Award
- 2018-now Amina B. Naliaka - Environmental Resources & Policy
- 2019 CUAHSI Summer School Award
- 2018-now Saroj Thapa - Environmental Resources & Policy (Co-chair with D.J. Gibson)

M.S. Advisees (as Chair)

- 2018-now Jessica Liew – Geography
- 2019 GPSC Research Award
- 2017-now Astha Bista - Geography
- 2018 Graduate Teaching Excellence Award
- 2017-now Sourav Bhadra - Geography
- 2018 Ben Dziegielewski Award
- 2017-now David Leifer - Geography
- 2018 ASMR Conference Travel Award
- 2017-now Mark Healy - Geography
- 2017 Ben Dziegielewski Award
- 2015-2017 Kristyn Stauber - Geography
- FY16 U.S. Forest Service Volunteer and Service Award

Ph.D./M.S. Advisees (as Committee Members)

- 2018-now N. Kolloju – Sociology, Ph.D.
- 2017-now C. Davis – Public Health, Ph.D.
- 2016-now S. Alam – Environmental Engineering, Ph.D. co-advise at UCLA
- 2016-now J. O’Connell – Zoology, Ph.D.; G. Qie – Environmental Resources & Policy, Ph.D.
- 2016-2018 Q. Wang – Environmental Resources & Policy, Ph.D.
- 2018-2019 M.M. Rahaman – Civil Engineering, M.S.
- 2017-2018 A. Alruzuq – Geography, M.S.
- 2016-2017 S. Rijal – Environmental Resources & Policy, Ph.D.
- 2016-2017 B. Polk – Geography, M.S.
- 2014-2015 J. Matczyszyn – Plant Science, Ph.D. at UNL; A. Heithoff, A. Countryman, and C. Deal – Survey Research and Methodology, M.S. at UNL

Undergraduate Advisees

- 2019-20 L. Prado – SIU REACH award project in Geography
- 2014-15 E. Jarrett, and M. O’Nele – Natural Resources Science, B.S., at UNL
- 2013-14 A. Miller – Geography, B.A., Graduated with Highest Distinction at UNL

PROFESSIONAL MEMBERSHIPS/CERTIFICATE

Since 2009	Association of American Geographers (AAG)
Since 2009	American Geophysical Union (AGU)
Since 2012	Engineer in Training (EIT), registered in Michigan in 2011
Since 2016	American Water Resources Association (AWRA)
Since 2016	The Universities Council on Water Resources (UCOWR)
Since 2016	FAA Unmanned Aircraft System (UAS) Remote Pilot Certificate
Since 2018	Chinese Professional in Geographic Information Systems (CPGIS)

GRNANTS/PAPERS REVIEW (with the number of manuscripts)

FY18,19 NSF GRFP proposals, FY18 Nebraska Water Center (1), FY17 State of Wisconsin Groundwater Research and Monitoring Proposal, Environmental Science & Technology (2), Science of the Total Environment (20), Progress in Physical Geography (1), Journal of Hydrology (3), Journal of Environmental Management (4), Journal of Environmental Quality (3), Environmental Pollution (1), Intl. Journal of Geographic Information Science (1), Global Environmental Change (1), Journal of the American Water Resources Association (1), Environmental Management (2); Environmental Modelling & Software (1); Annals of GIS (1); CATENA (3), Journal of Cleaner Production (2), Earth and Space Science (1); Journal of Hydrologic Engineering (1), Hydrogeology Journal (1), GeoCarto International (8), Water and Environment Journal (3), Environmental Monitoring and Assessment (3); Ecological Indicators (1), Water Policy (1), ISPRS Intl. Journal of Geo-Information (1), Remote Sensing (1), Journal of Contaminant Hydrology (1), Energy Conversion and Management (1), Ocean and Coastal Management (1), Journal of Forestry (1), Human and Ecological Risk Assessment (1), Archives of Agronomy and Soil Science (1), Intl. Journal of Disaster Risk Science (2), Frontiers of Earth Science (2), Intl. Journal of Environmental Research and Public Health (2), Environmental Studies & Sciences (1), Water (1), Wetlands (1), Water Quality, Exposure and Health (1), Journal of Rural Studies (1), Sustainability (1), Sustainable Cities and Society (1), Transactions of the Illinois State Academy of Science (1) , Southeastern Geographers (1), 2018 CPGIS Student Paper Competition (4)

SYNERGISTIC ACTIVITIES

Apr, 2019	Session Chairs , Using Coupled Human-Hydrologic Approaches to Advance Water Management and Governance, Emerging Geospatial Techniques to Advance the Understanding of Water Resources, 2019 AAG Annual Meeting, Washington DC.
Apr, 2019-now	Member , Computing Advisory Committee, Southern Illinois University-Carbondale

- Nov, 2018-now **Guest Editor**, *Remote Sensing* special issue on “Value and Potential of Remote Sensing Data for Food, Energy, and Water Nexus” (with Prof. M. Gebremichael)
- Nov 15, 2018 **Organizer and Panelist**, *Drone Panel Talk in Southern Illinois* in celebration of 2018 GIS Day
- Apr, 2018-now **Elected Member**, Graduate Council, Southern Illinois University-Carbondale
- Apr, 2018 **Session Chair**, Creative Pedagogies and Tools for Enhancing Geography Learning, 2018 AAG Annual Meeting, New Orleans, LA
- Apr, 2018-now **Member**, AAG Water Resources Specialty Group Awards Committee
- Jan, 2018 **Review Panelist**, NSF Graduate Research Fellowship Program
- Apr, 2017 **Session Chair**, Geographies of Food and Agriculture Special Topics: Research in agriculture, 2017 AAG Annual Meeting, San Francisco, CA
- Jul, 2016 **Session Chair**, Water resource planning and management, irrigation and water usage I and II, 5th International Conference on Agro-Geoinformatics, Tianjin.
- Apr, 2016-now **University Delegate**, The Universities Council on Water Resources (UCOWR)
- Mar, 2016 **Session Organizer/Chair**, Water Resources Sustainability in California I and II, 2016 AAG Annual Meeting, San Francisco, CA
- Dec, 2015-now **Graduate Program committee member**, Department of Geography & Environmental Resources, SIUC
- Dec, 2015-now **Faculty Adviser** for **SIUC GIS Club**, a registered student organization
- Dec, 2014 **Outstanding Student Paper Awards Judge**, American Geophysical Union Conference, San Francisco, CA
- 2010-2011 **Student Adviser**, EnvironMentor Program (for high-school students), UNL

OTHER RESEARCH ACTIVITIES

- 2014- 2015 **Project Manager**, *For Development of a Groundwater Model for the Lower Platte River and Missouri River Tributaries Basins*, Nebraska DNR.
- 2013-2015 **Hydrologist**, *Development of Hydrologically Connected Area in Support of INSIGHT*, Nebraska DNR.
- 2014-2015 **Hydrologist**, *Niobrara River WaterSmart Study*, funded by the US Bureau of Reclamation and the Nebraska DNR.
- 2012-2013 **Hydrologist**, *Platte River Cooperative Hydrology Study (COHYST) project*, funded by multi-agencies in Nebraska (Apr. 2012-Dec. 2013)
- 2011 **GIS Developer**, *U.S. Drought Impact Reporter (2nd Release)*, National Drought Mitigation Center, UNL.
- 2010-2011 **Environmental Modeler**, *Developing LiDAR-Derived Wetland Maps to Assess Conservation Design Practices For Playa Wetlands*, US EPA
- 2008-2012 **Environmental Modeler**, *Modeling Impacts of Future Land Use Change on Groundwater Quality in the Northern Great Plain*, USDA
- 2006-2007 **Environmental Modeler**, *Water Resource Planning and Management in Hengshui*

INVITED TALKS

- 2019 “Drone-based Water Quality Monitoring for Harmful Algal Blooms”, Invited Talk by Southern Illinois Volunteer Lake Monitoring Program. Marion, IL. Apr 19, 2019.
- 2018 “Social Media Footprints of Public Perception on Energy Issues”, Research Seminar, Environmental Resources & Policy Program, Southern Illinois University, Carbondale, IL. Mar 28, 2018.
- 2017 “Geospatial Perspectives for Land and Water Research”, Electronic Visualization Lab (EVL), University of Illinois-Chicago, Chicago, IL. Jun 7, 2017.
- 2016 GIS and Its Applications, Panel Discussion Seminar for the GIS Day, Southern Illinois University, Carbondale, IL. Nov 16, 2016.
- “Water Resources Planning and Management in Semi-arid U.S. Midwest”, 2 seminars given at Center for Agricultural Resources Research, Chinese Academy of Sciences on Jul 14, 2016; Institute of Hydrogeology and Environmental Geology, China Geological Survey on Aug 4, 2016, Shijiazhuang, Hebei Province, China.
- “Integration of Geospatial Information and Environmental Models for Water Resources and Land Management”, 3 seminars given at School of Remote Sensing and Information Engineering, Wuhan University on Jun 1, 2016; Faculty of Information Engineering, China University of Geosciences on Jun 2, 2016; School of Resources and Environment, Huazhong Agricultural University on Jun 3, 2016, in Wuhan, Hubei Province, China.
- “The Outlook for Groundwater Sustainability under Management Scenarios in the Central Valley, California”, Research Seminar, Environmental Resources & Policy Program, Southern Illinois University, Carbondale, IL. Mar 9, 2016.
- “Modeling for Land and Water Management in Intensive Agricultural Areas”, Research Seminar, Illinois State Water Survey (ISWS), University of Illinois-Urbana Champaign, Champaign, IL. Jan. 6, 2016.
- 2015 “Modeling Practices for Water Resource Management in Agricultural Landscape: From Nebraska to California”, Research Seminar, Center for Spatial Information Science and Systems (CSISS), George Mason University, Fairfax, VA. Sept 18, 2015.
- “Geospatial Modeling for Characterizing Agricultural Landscapes: From Farmlands to Wetlands”, Research Seminar, Department of Geography and Environmental Resources, Southern Illinois University, Carbondale, IL. Jan 16, 2015.
- 2014 “Modeling for Integrating Land and Water Management in Agricultural Landscapes”, Research Seminar, Department of Geography, Oklahoma State University, Stillwater, OK. Dec 4, 2014.
- “Exploring Land Availability for Bioenergy Crops and its Related Modeling Practices”, Geography Seminar Series, Geography & GIScience Program, University of Nebraska-Lincoln, Lincoln, NE. Oct 10, 2014.