

Donghoon Lee, Ph.D.

Canada Research Chair (Tier 2) in Climate Resilient Water and Food Security
Assistant Professor, Department of Civil Engineering, University of Manitoba

✉ donghoon.lee@umanitoba.ca 🌐 [Hydroclimate-Society Lab](#)

Education	2013–2018	Ph.D. , Civil & Environmental Engineering, University of Wisconsin–Madison, USA
	2010–2012	M.S. , Civil Engineering, Ajou University, South Korea
	2004–2010	B.S. , Civil Systems Engineering, Ajou University, South Korea
Academic Appointments	2024–present	Canada Research Chair (Tier 2) in Climate Resilient Water and Food Security, University of Manitoba
	2024–present	Assistant Professor , Department of Civil Engineering, University of Manitoba
	2024–present	Affiliated Researcher , Climate Hazards Center, UC Santa Barbara
	2020–2023	Postdoctoral Researcher, Climate Hazards Center, UC Santa Barbara
	2018–2020	Research Associate, Civil & Environmental Engineering, UW–Madison
	2013–2018	Graduate Research Assistant, Civil & Environmental Engineering, UW–Madison
Research Funding	All awards held as Principal Investigator. Total CAD \$1,037,500 .	
	2026–2030	NSERC Discovery Grant (incl. Launch Supplement) — <i>Integrated Climate Impact and Policy Modeling for a Resilient Canada</i> . \$202,500
	2026–2030	Graduate Enhancement of Tri-Agency Stipends (GETS), University of Manitoba. \$50,000
	2026–2029	NSERC Canada Impact+ Research Training Award (CIRTA), Doctoral Fellowship. \$120,000. Recipient: Mohammad Javad Saravani
	2026–2027	University of Manitoba, University Research Grants Program — <i>Data-Driven Wild-fire Forecasting for the Canadian Prairie</i> . \$15,000
	2025–2027	Research Manitoba, New Investigator Operating Grant — <i>Advancing Manitoba's Hydropower Resilience and Water Management by Integrating SWOT Observations and Climate Forecasting</i> . \$50,000
	2024–2028	Tri-Agency Canada Research Chairs Program — <i>Canada Research Chair (Tier 2) in Climate Resilient Water and Food Security</i> . \$600,000
Honours and Awards	2024	Canada Research Chair (Tier 2) in Climate Resilient Water and Food Security, Government of Canada
	2018	James Villemonte Excellence in Research Graduate Student Achievement Award, UW–Madison
	2018	Research Conference Travel Funds Award, The Graduate School, UW–Madison (USD \$1,200)
	2015–2018	Becker Travel Supplement Funds Award, UW–Madison (USD \$1,000)
	2012	Student Presentation Winner, Korea Water Resources Association Conference
Peer-Reviewed Journal Articles	Bold indicates the author; [†] indicates a student or mentee under my supervision.	
	22.	Kallenberg, M., Paudel, D., Ofori-Ampofo, S., Baja, H., van Bree, R., Potze, A., Poudel, P., Saleh, A., Anderson, W., von Bloh, M., Castellano, A., Ennaji, O., Hamed, R., Laudien, R.,

- Lee, D., Luna, I., Masiliūnas, D., Meroni, M., Mutuku, J. M., Mkuhlani, S., Richetti, J., Ruane, A. C., Sahajpal, R., Shuai, G., Sitokonstantinou, V., Nóia-Júnior, R., Srivastava, A. K., Strong, R., Sweet, L., Vojnović, P., de Wit, A., Zachow, M., and Athanasiadis, I. N. (2026). CY-Bench: a comprehensive benchmark dataset for sub-national crop yield forecasting. *Earth System Science Data*, 18, 3997–4018. doi: [10.5194/essd-18-3997-2026](https://doi.org/10.5194/essd-18-3997-2026).
21. Stojković, M., Sitzenfrei, R., Lee, D., Leitão, J. P., Yang, T., and Prodanović, V. (2026). Editorial: Special issue 'Digital Water'. *Blue-Green Systems*, 8, 136–140. doi: [10.2166/bgs.2026.015](https://doi.org/10.2166/bgs.2026.015).
 20. Kim, H., Kim, H., Lee, D., Seomun, G., and Woosnam, K. M. (2025). Climate gentrification and green infrastructure in the U.S. Great Lakes region: Engaging with heat exposure and adaptation policy. *Habitat International*, 163, 103453. doi: [10.1016/j.habitatint.2025.103453](https://doi.org/10.1016/j.habitatint.2025.103453).
 19. Geyman, E. C., Ferris, A., Sahajpal, R., Anderson, W., Lee, D., and Hausmann, N. (2025). An Africa-wide agricultural production database to support policy and satellite-based measurement systems. *Scientific Data*, 12, 1087. doi: [10.1038/s41597-025-05257-5](https://doi.org/10.1038/s41597-025-05257-5).
 18. Davis, K. F., Anderson, W., Ehrmann, S., Flach, R., Meyer, C., Proctor, J., Ray, D., You, L., Foley, M., Kerdiles, H., Hultgren, A., Huybers, P., Kebede, E., Meroni, M., Park, C., and Lee, D. (2025). HarvestStat: A global effort towards open and standardized sub-national agricultural data. *Environmental Research Letters*, 20, 052001. doi: [10.1088/1748-9326/adcb54](https://doi.org/10.1088/1748-9326/adcb54).
 17. Lee, D., Anderson, W., Chen, X., Davenport, F., Shukla, S., Sahajpal, R., Budde, M., Rowland, J., Verdin, J., You, L., Ahouangbenon, M., Davis, K. F., Kebede, E., Ehrmann, S., Justice, C., and Meyer, C. (2025). HarvestStat Africa — Harmonized subnational crop statistics for Sub-Saharan Africa. *Scientific Data*, 12, 690. doi: [10.1038/s41597-025-05001-z](https://doi.org/10.1038/s41597-025-05001-z).
 16. Davenport, F., Lee, D., Shukla, S., Husak, G., Funk, C., Budde, M., and Rowland, J. (2024). Testing spatial out-of-sample area of influence for grain forecasting models. *Environmental Research Letters*, 19, 114079. doi: [10.1088/1748-9326/ad845e](https://doi.org/10.1088/1748-9326/ad845e).
 15. Lee, D., Davenport, F., Shukla, S., Husak, G., Funk, C., and Verdin, J. (2024). Contrasting performance of panel and time-series data models for subnational crop forecasting in Sub-Saharan Africa. *Agricultural and Forest Meteorology*, 359, 110213. doi: [10.1016/j.agrformet.2024.110213](https://doi.org/10.1016/j.agrformet.2024.110213).
 14. Shukla, S., Zaheer, F., Hoell, A., Anderson, W., Jayanthi, H., Husak, G., Lee, D., Barker, B., Pervez, S., Slinski, K., Justice, C., Rowland, J., McNally, A. L., Budde, M., and Verdin, J. (2024). ENSO-based outlook of droughts and agricultural outcomes in Afghanistan. *Weather and Climate Extremes*, 45, 100697. doi: [10.1016/j.wace.2024.100697](https://doi.org/10.1016/j.wace.2024.100697).
 13. †Roland, H. B., Curtis, K. J., Malecki, K. M. C., Lee, D., Bazo, J., and Block, P. (2023). Geographic isolation and vulnerability across Peru's ecological regions: The influence of regional contexts of extraction. *Annals of the American Association of Geographers*, 113, 2126–2148. doi: [10.1080/24694452.2023.2216762](https://doi.org/10.1080/24694452.2023.2216762).
 12. Lala, J., Lee, D., Bazo, J., and Block, P. (2022). Evaluating prospects for subseasonal-to-seasonal forecast-based anticipatory action from a global perspective. *Weather and Climate Extremes*, 38, 100510. doi: [10.1016/j.wace.2022.100510](https://doi.org/10.1016/j.wace.2022.100510).
 11. Lee, D., Davenport, F., Shukla, S., Husak, G., Funk, C., Harrison, L., McNally, A., Rowland, J., Budde, M., and Verdin, J. (2022). Maize yield forecasts for Sub-Saharan Africa using Earth Observation data and machine learning. *Global Food Security*, 33, 100643. doi: [10.1016/j.gfs.2022.100643](https://doi.org/10.1016/j.gfs.2022.100643).
 10. Lee, D., Ng, J. Y., Galelli, S., and Block, P. (2022). Unfolding the relationship between seasonal forecast skill and value in hydropower production: A global analysis. *Hydrology and Earth System Sciences*, 26, 2431–2448. doi: [10.5194/hess-26-2431-2022](https://doi.org/10.5194/hess-26-2431-2022).
 9. Davenport, F. M., Shukla, S., Turner, W., Funk, C., Krell, N., Harrison, L., Husak, G., Lee, D., and Peterson, S. (2021). Sending out an SOS: Using start of rainy season indicators for market price forecasting to support famine early warning. *Environmental Research Letters*, 16, 084050. doi: [10.1088/1748-9326/ac15cc](https://doi.org/10.1088/1748-9326/ac15cc).

8. [†]Keating, C., Lee, D., Bazo, J., and Block, P. (2021). Leveraging multi-model season-ahead streamflow forecasts to trigger advanced flood preparedness in Peru. *Natural Hazards and Earth System Sciences*, 21, 2215–2231. doi: [10.5194/nhess-21-2215-2021](https://doi.org/10.5194/nhess-21-2215-2021).
7. Lee, D., Ahmadul, H., Patz, J., and Block, P. (2021). Predicting social and health vulnerability to floods in Bangladesh. *Natural Hazards and Earth System Sciences*, 21, 1807–1823. doi: [10.5194/nhess-21-1807-2021](https://doi.org/10.5194/nhess-21-1807-2021).
6. Zhang, Y., You, L., Lee, D., and Block, P. (2020). Integrating climate prediction and regionalization into an agro-economic model to guide agricultural planning. *Climatic Change*, 158, 435–451. doi: [10.1007/s10584-019-02559-7](https://doi.org/10.1007/s10584-019-02559-7).
5. Lee, D., Ward, P. J., and Block, P. (2018). Identification of symmetric and asymmetric responses in seasonal streamflow globally to ENSO phase. *Environmental Research Letters*, 13, 044031. doi: [10.1088/1748-9326/aab4ca](https://doi.org/10.1088/1748-9326/aab4ca).
4. Lee, D., Ward, P., and Block, P. (2018). Attribution of large-scale climate patterns to seasonal peak-flow and prospects for prediction globally. *Water Resources Research*, 54, 916–938. doi: [10.1002/2017WR021205](https://doi.org/10.1002/2017WR021205).
3. Lee, D., Ward, P., and Block, P. (2015). Defining high-flow seasons using temporal streamflow patterns from a global model. *Hydrology and Earth System Sciences*, 19, 4689–4705. doi: [10.5194/hess-19-4689-2015](https://doi.org/10.5194/hess-19-4689-2015).
2. Lee, D., Choi, J., Shin, S., and Yi, J. (2013). A study on proper number of subbasin division for runoff analysis using Clark and ModClark methods in midsize basins. *Journal of the Korean Society of Civil Engineers*, 33, 157–170. doi: [10.12652/Ksce.2013.33.1.157](https://doi.org/10.12652/Ksce.2013.33.1.157).
1. Lee, D., Choi, C., Yu, M., and Yi, J. (2012). Reevaluation of multi-purpose reservoir yield. *Journal of Korea Water Resources Association*, 45, 361–371. doi: [10.3741/JKWRA.2012.45.4.361](https://doi.org/10.3741/JKWRA.2012.45.4.361).

Technical Reports

2. Yu, M. and Lee, D. (2023). *Navigating climate challenges: Establishing an ASEAN climate change database*. Korea Environment Institute. In *Environmental Sustainability in Asia: Advancing ASEAN Regional Cooperation on Climate Change*.
1. Roland, H. B., Lee, D., Wirz, C. D., Curtis, K. J., Malecki, K., Brossard, D., and Block, P. (2021). *Stakeholders' perspectives on flood risk and vulnerability in Peru*. University of Wisconsin–Madison. <http://digital.library.wisc.edu/1793/82505>.

Invited Talks

10. “HarvestStat Africa: Development, Maintenance, and Applications”. *HarvestStat Consortium Webinar Series*. Aug 2026.
9. “Climate data in action for disaster management and food security”. *Association of Korean-Canadian Scientists and Engineers, University of Manitoba*. Oct 2025.
8. “Climate data in action for disaster management and food security”. *CNU Conference of Advanced Technology 2025, Chungnam National University*. Sep 2025.
7. “Forecasting for disaster resilience and food security”. *CNU Conference of Advanced Technology 2024, Chungnam National University*. Nov 2024.
6. “Forecasting for disaster resilience and food security”. *United Nations Academic Impact – The Last Drop: Water Researchers Speaker Series, University of Manitoba*. Oct 2024.
5. “Forecasting for disaster resilience and food security”. *Climate Seminar, Department of Geography, University of California, Santa Barbara*. Jun 2024.
4. “Sustainable management of future water resources and hazards”. *Manitoba Hydro*. Feb 2024.
3. “Planning for prosperity: Forecasting for disaster management and food security”. *Departmental Seminar, Division of Environmental Science & Engineering, POSTECH*. Mar 2023.

2. "Forecasting for pre-disaster management from flood hazard to food insecurity". *Geography Seminar Series, Department of Geography, University of Cincinnati*. Mar 2021.
1. "Developing a global flood prediction model to support health risk management". *Global Health Tuesday Seminar, Global Health Institute, University of Wisconsin–Madison*. Nov 2017.

Conference Presentations

† indicates a student or mentee under my supervision as first author.

47. †Akintola, B., Asadzadeh, M., and **Lee, D.** (2026). Evaluating the reliability of SWOT observations in the Nelson–Churchill River Basin. *Canadian Society for Civil Engineering Annual Conference*.
46. †Raeispour, N. and **Lee, D.** (2026). Predicting wildfire risk in Canada at subseasonal to seasonal timescales. *Canadian Society for Civil Engineering Annual Conference*.
45. Das, B., Davenport, F., Shukla, S., **Lee, D.**, Harrison, L., Peterson, S., Husak, G. J., Funk, C. C., Tabor, K. M., and Budde, M. E. (2025). Predictive power of models for identifying the impact of irrigation on winter wheat yield in Afghanistan. *AGU Fall Meeting*.
44. Anderson, W. B., Becker-Reshef, I., Davis, K. F., Ehrmann, S., Flach, R., **Lee, D.**, Meyer, C., Proctor, J., Ray, D. K., and You, L. (2025). Observational estimates of increasing maize yield variance due to climate change. *AGU Fall Meeting*.
43. Shukla, S., Davenport, F., Tabor, K., Das, B., **Lee, D.**, Anderson, W., Hazra, A., Slinski, K., McNally, A., Harrison, L., and Husak, G. J. (2025). Application of remotely sensed and modeled soil moisture for anticipating crop production shocks in food-insecure countries. *EGU General Assembly*.
42. Shukla, S., Davenport, F., Das, B., **Lee, D.**, Anderson, W. B., Yoon, E., Hazra, A., Slinski, K., McNally, A., Tabor, K. M., Harrison, L., and Husak, G. J. (2024). From agricultural drought risks to crop production shocks: Enhancing food insecurity early warning through the application of remotely sensed and modeled soil moisture. *AGU Fall Meeting*.
41. **Lee, D.**, Anderson, W., Davenport, F., Shukla, S., Yoon, E., Das, B., Husak, G., and Funk, C. (2024). HarvestStat Africa: Application to crop yield forecasting for improved food security in Sub-Saharan Africa. *AGU Fall Meeting*.
40. Anderson, W., **Lee, D.**, Chen, X., Davenport, F., Shukla, S., Sahajpal, R., Budde, M., Rowland, J., Verdin, J., You, L., Ahouangbenon, M., Davis, K., Kebede, E. A., Ehrmann, S., Justice, C., and Meyer, C. (2024). An open-access subnational crop statistics dataset for climate-smart analyses in Africa. *AGU Fall Meeting*.
39. Das, B., Shukla, S., Davenport, F., **Lee, D.**, Harrison, L., Husak, G., Tabor, K. M., Rowland, J., Budde, M., and Verdin, J. (2024). Evaluating crop yield prediction models in Sub-Saharan Africa: Biophysical vs. agro-climatic predictors. *AGU Fall Meeting*.
38. Shukla, S., Davenport, F., **Lee, D.**, Anderson, W., Yoon, E., Slinski, K., Hazra, A., and McNally, A. (2024). Enabling long-lead crop yield forecasting with remotely sensed and modeled soil moisture and seasonal scale forecasts to support food insecurity early warning. *AGU Chapman Conference*.
37. **Lee, D.**, Davenport, F., Shukla, S., Husak, G., Funk, C., Budde, M., Rowland, J., and Verdin, J. (2023). Utilizing earth observation for enhanced crop production forecasting in West Africa. *AGU Fall Meeting*.
36. **Lee, D.**, Davenport, F., Shukla, S., Harrison, L., Husak, G., Funk, C., Budde, M., Rowland, J., McNally, A., and Verdin, J. (2023). Leveraging hydroclimate and earth observation to predict grain production in Sub-Saharan Africa. *EGU General Assembly*.
35. **Lee, D.** (2023). Vulnerability to natural hazards: Spatial patterns and disparities. *Spatial Lightning Talks, Center for Spatial Studies, University of California, Santa Barbara*.
34. Davenport, F., **Lee, D.**, and Shukla, S. (2023). Testing spatial out-of-sample area of influence for grain forecasting models. *Western Regional Science Association*.

33. Davenport, F., Shukla, S., **Lee, D.**, Anderson, P., Husak, G., and Funk, C. (2023). Testing spatial out-of-sample area of influence for grain forecasting models: How does spatial out-of-sample Aol change through the season? *EGU General Assembly*.
32. Block, P., Southard, K., **Lee, D.**, and Bazo, J. (2023). Emerging opportunities and challenges of anticipatory actions for disaster preparedness. *EGU General Assembly*.
31. **Lee, D.**, Davenport, F., Shukla, S., Harrison, L., Husak, G., Funk, C., Budde, M., Rowland, J., McNally, A., and Verdin, J. (2022). In-season operational forecasts of subnational grain production in Sub-Saharan Africa. *AGU Fall Meeting*.
30. Davenport, F., Shukla, S., **Lee, D.**, Anderson, P., Husak, G., and Funk, C. (2022). Testing the spatial out-of-sample area of influence for survey-based forecasting models. *AGU Fall Meeting*.
29. Block, P., Roland, H., Malecki, K., **Lee, D.**, Brossard, D., Curtis, K., and Wirz, C. (2022). Perspectives on flood risk, vulnerability, and early warnings in Peru. *AGU Fall Meeting*.
28. **Lee, D.**, Davenport, F., Shukla, S., Husak, G., and Funk, C. (2021). An operational crop yield forecasting system for Sub-Saharan Africa using earth observation and machine learning. *AGU Fall Meeting*.
27. Davenport, F., Shukla, S., **Lee, D.**, Landsfeld, M., Macharia, D., Husak, G., and Funk, C. (2021). Implementing and integrating earth observation based systems for grain forecasting in Eastern and Southern Africa. *AGU Fall Meeting*.
26. Funk, C., Williams, E., Peterson, P., Turner, W., Green, R., Shukla, S., **Lee, D.**, Tuholske, C., Harrison, L., and Husak, G. (2021). Exploring a new set of global vapor pressure deficit observations and projections, accompanied by regional NDVI impact assessments in the south-west U.S. and Sub-Saharan Africa. *AGU Fall Meeting*.
25. **Lee, D.**, Davenport, F., Shukla, S., Husak, G., and Funk, C. (2021). Maize yield forecast using earth observation data and machine learning for Sub-Saharan Africa. *EGU General Assembly*.
24. †Roland, H., **Lee, D.**, Malecki, K., Curtis, K., and Block, P. (2020). Flood-related vulnerability in Iquitos, Peru: An applied approach to inform disaster aid forecast-based financing. *Population Association of America*.
23. **Lee, D.**, Ahmadul, H., and Block, P. (2020). Social-health vulnerability and predictability of flood impacts using flood forecast and satellite inundation in Bangladesh. *AGU Fall Meeting*.
22. Ng, J. Y., **Lee, D.**, Galelli, S., and Block, P. (2020). Benefits and limits of season-ahead forecasts for hydropower production: A global analysis. *EGU General Assembly*.
21. Block, P. and **Lee, D.** (2020). Predicting floods and flood-health vulnerability to support pre-disaster management in Peru. *EGU General Assembly*.
20. **Lee, D.**, Bazo, J., and Block, P. (2019). Prediction of flood-health vulnerability and risk to support pre-disaster management in Peru. *AGU Fall Meeting*.
19. **Lee, D.** and Block, P. (2018). Assessment of a flood-induced health risk prediction system. *AGU Fall Meeting*.
18. **Lee, D.** and Block, P. (2018). Development of a flood-induced health risk prediction model: A case study for Africa. *Environmental and Water Resources Congress*.
17. **Lee, D.** and Block, P. (2017). Development of a flood-induced health risk prediction model for Africa. *AGU Fall Meeting*.
16. Ng, J. Y., **Lee, D.**, Galelli, S., and Block, P. (2017). Determining the effect of key climate drivers on global hydropower production. *AGU Fall Meeting*.
15. **Lee, D.**, Ward, P., and Block, P. (2017). Using season-ahead streamflow predictions to estimate flood-induced health risks for early warning. *Environmental and Water Resources Congress*.
14. **Lee, D.**, Ward, P., and Block, P. (2016). A preliminary evaluation of season-ahead flood prediction conditioned on large-scale climate drivers. *EGU General Assembly*.

13. **Lee, D.**, Ward, P., and Block, P. (2016). A preliminary season-ahead prediction of global flood risks. *Environmental and Water Resources Congress*.
12. **Lee, D.**, Ward, P., and Block, P. (2016). Conditioning season-ahead global flood forecasting on large-scale climate indices. *AGU Fall Meeting*.
11. **Lee, D.**, Ward, P., and Block, P. (2015). A preliminary evaluation of season-ahead flood risks globally. *AGU Fall Meeting*.
10. **Lee, D.**, Ward, P., and Block, P. (2015). Flood prediction: Can a global scale analysis be informative? *Environmental and Water Resources Congress*.
9. Block, P. and **Lee, D.** (2014). Prospects for seasonal global flood forecasting. *UCOWR/NIWR/CUAHSI Annual Conference*.
8. Block, P., **Lee, D.**, and Ward, P. (2014). Prospects for seasonal global flood forecasting. *Environmental and Water Resources Congress*.
7. **Lee, D.**, Ward, P., and Block, P. (2014). Prospects for season-ahead global flood forecasts. *AGU Fall Meeting*.
6. Choi, J., **Lee, D.**, and Yi, J. (2012). Analysis of flood runoff hydrograph by parameter estimation technique. *Korea Water Resources Association Conference*.
5. Kwon, T., **Lee, D.**, and Yi, J. (2012). Flood discharge and stage analysis of Gyeongin ARA Waterway for the July 2011 flood. *Korea Water Resources Association Conference*.
4. **Lee, D.**, Choi, J., and Yi, J. (2012). Analysis of runoff variation according to subbasin division. *Korea Water Resources Association Conference*.
3. **Lee, D.**, Choi, C., Yu, M., and Yi, J. (2011). Reevaluation of Andong and Imha reservoir yield. *Korea Water Resources Association Conference*.
2. Choi, C., Kim, H., Yi, J., Yu, M., and **Lee, D.** (2011). Optimal reservoir operation using goal programming for flood control. *EGU General Assembly*.
1. Yu, M., **Lee, D.**, Choi, C., and Yi, J. (2010). Construction of flood inundation map for flood damage analysis. *Korea Water Resources Association Conference*.

Teaching

University of Manitoba – Instructor of Record

Fall 2026	Hydroclimatology in Water Resources Management
Fall 2025	Hydroclimatology in Water Resources Management
Winter 2025	Climate Change in Civil Engineering
Fall 2024	Hydroclimatology

Teaching Assistantships

Fall 2017	Fluid Mechanics, University of Wisconsin–Madison
Spring 2012	Elementary Surveying & Practice, Ajou University
Fall 2011	Fluid Mechanics, Ajou University

Student Supervision

Current Students

2026–present	Mehran Besharatifar, Ph.D. (advisor), University of Manitoba
2025–present	Alexis Nemeth, Ph.D. (co-advisor), University of Manitoba
2025–present	Niloofar Raeispour, M.Sc. (advisor), University of Manitoba
2026–present	Adila Tanim Ekra, M.Sc. (advisor), University of Manitoba
2025–present	Bardia Nia, M.Eng. (advisor), University of Manitoba
2024–present	Boluwatife Akintola, M.Sc. (co-advisor), University of Manitoba
Summer 2026	James Wiens, Undergraduate Research Award (URA), University of Manitoba

Summer 2026 Junhyuk Lee, Undergraduate, University of Manitoba

Past Mentoring – with current position

2024–2025 Barnali Das, Postdoctoral Researcher, UC Santa Barbara – now Assistant Professor, Kansas State University

2019–2022 Hugh Roland, Ph.D. student, UW–Madison – now Assistant Professor, University of Alabama at Birmingham

2019–2021 Colin Keating, M.S. student, UW–Madison – now USGS California Water Science Center

2019 Li Xu, Visiting M.S. student, UW–Madison – now China Satellite Navigation Office

Institutional Service

Departmental and Faculty Committees – University of Manitoba

2024–2026 Member, Graduate Studies and Research Committee, Civil Engineering

Graduate Committees

2025–present Advisory committee member, M.Sc. students in Civil Engineering: Mahboobeh Jomehzadeh (Advisor: Dr. Shawn Clark); Mohamad Khan (Advisor: Dr. Youngjin Cha)

2025–2026 Chair (procedural), 3 Ph.D. candidacy and oral examinations – Civil Engineering; Environment and Geography

Outreach and Adjudication

Nov 2025 Panellist, University of Manitoba Research Symposium – *The Future of Climate Action*

Nov 2025 Judge, University of Manitoba Engineering Competition

Oct 2025 Judge, Undergraduate Research Showcase

Mar 2025 Judge, CivilGradExpo: Research Innovation Showcase

Professional Service

Editorial

2026 Guest Editor, Special Issue on *Digital Water, Blue-Green Systems* (IF 4.6). iwaponline.com/bgs/pages/si_digital_water

2021–present Review Editor, *Frontiers in Climate*

Grant Review Panels

Jul 2026 Research Manitoba – New Investigator Operating Grant (3 applications)

Apr 2026 Research Manitoba – Master's Studentship Award (4 applications)

Other Professional Service

2026 Session Convener: Data and Methods for Understanding Effects of Climate Change on Global Agriculture, American Geophysical Union

2025 Reviewer, First-Time Presenter Feedback Program, American Geophysical Union

Journal Peer Review (ad hoc)

2018–2026 *Nature Climate Change* (2025); *Water Resources Research* (2022, 2023, 2026); *Bulletin of the American Meteorological Society* (2026); *Earth's Future* (2022, 2025); *npj Climate and Atmospheric Science* (2024); *Environmental Research Letters* (2019, 2026); *Environmental Modelling & Software* (2018, 2022, 2025×2); *Journal of Hydrology* (2019, 2021×2); *Journal of Hydrometeorology* (2025); *Journal of Water Resources Planning and Management* (2017, 2018, 2019); *Natural Hazards and Earth System Sciences* (2020); *Climatic Change* (2018); *Weather and Forecasting* (2020); *Agricultural Water Management* (2021); *Applied Geography* (2022); *Atmospheric*

Measurement Techniques (2020); *BMC Public Health* (2022); *Frontiers in Climate* (2021, 2023); *Frontiers in Environmental Science* (2024); *Journal of Agronomy and Crop Science* (2022); *Sustainability* (2021).

Media Coverage	Sep 2025	<i>A New Dataset is Powering the Fight Against Hunger in Africa.</i> UN ReliefWeb. [link]
	Jan 2025	<i>Machine Learning Opens New Avenues for Crop-Yield Forecasting in Data-Sparse Areas.</i> AgriLinks. [link]

Professional Memberships	2024–present	Engineers Geoscientists Manitoba
	2014–present	American Geophysical Union
	2014–present	American Society of Civil Engineers
	2011–present	European Geosciences Union
		Korea Water Resources Association
		Korean Society of Civil Engineers