

SHENYUE JIA, PH.D.

Assistant Professor, Department of Geography | Director, Geospatial Analysis Center

Candidate for Secretary, AGU Science and Society Section

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PROFESSIONAL PROFILE

Geospatial scientist, educator, and community-engaged scholar whose work uses Earth observations, GIS, and human mobility data to examine disaster impacts, power outages, climate-health risks, and community resilience. Experienced in translating research across scientific, policy, educational, and community settings and in advancing inclusive science communication.

AGU LEADERSHIP, SERVICE & ENGAGEMENT

2023-Present | AGU Science and Society Section Executive Committee. Contribute to section leadership and activities connecting science with societal needs.

2023-Present | AGU Annual Meeting Program Committee. Support development and coordination of the Science and Society scientific program, including session review and program planning.

2024-Present | AGU Local Science Partner. Engage with community and policy partners to strengthen the use of science in locally relevant decision-making.

2023-2024 | AGU Voices for Science, Policy Track Fellow. Advanced skills in science policy, public engagement, and evidence-based advocacy.

2022-2023 | AGU Thriving Earth Exchange Community Science Fellow / Project Manager. Led a multidisciplinary team supporting community-driven environmental justice work in Adel, Georgia.

2018-Present | AGU presenter and contributor. Presented research on disaster resilience, power outages, human mobility, environmental justice, climate-health communication, and science communication at AGU meetings.

PROFESSIONAL APPOINTMENTS

2026-Present Director, Geospatial Analysis Center, Miami University

2023-Present Assistant Professor of Geography, Miami University

2025 Visiting Scholar, National Center for Ecological Analysis and Synthesis, UC Santa Barbara

2021-2023 Data Scientist, CrisisReady

2017-2023 Visiting Scholar, Chapman University

2017 Research Associate, University of California, Los Angeles

EDUCATION

2017 Ph.D., Geography, University of California, Los Angeles

2011 M.S., Cartography and GIS, Nanjing University

2008 B.S., Geographic Information Science, Nanjing Normal University

SELECTED HONORS, FELLOWSHIPS & SUPPORT

2026 GeoCAFE Scholar

2025-2026 Miami University Faculty Research Grant; Humanities Center Digital Research Fellowship

2025 NASA DEVELOP Pop-Up Project (in-kind project support)

2024 Science Communications Identities Project Fellow; Miami University Center for Teaching Excellence Major Grant

2020 Future of Privacy Forum Award for Research Data Stewardship, Honorable Mention

RESEARCH FOCUS & SELECTED PROJECTS

Disaster-related power outages and climate-health risk. Evaluate the feasibility of satellite nighttime-light imagery for detecting outages and quantify impacts on medically vulnerable and rural populations.

Community-centered actionable science. Combine geospatial analysis with local knowledge and stakeholder priorities to support environmental justice, emergency response, and resilience planning.

Human mobility and disaster response. Developed methods and decision-support tools using privacy-preserving mobility and crowdsourced data to identify displacement and vulnerability during disasters.

Urban environmental change. Map wildfire exposure, tree-canopy inequity, and historical urban transformation through remote sensing, GIS, and spatial storytelling.

SELECTED PEER-REVIEWED PUBLICATIONS

Bedi, N. S., Jia, S., Buckee, C., Schroeder, A., & Balsari, S. (2025). Power outages: Implications for California's medically vulnerable population. *Disaster Medicine and Public Health Preparedness*, 19, e66.

Laszewski, S., Jia, S., Viner, J., et al. (2024). Yearly population data at census tract level revealed that more people are now living in highly fire-prone zones in California, USA. *Environmental Research Communications*, 6, 031004.

Schroeder, A., Dresser, C., Yadav, A., et al. (2023). CrisisReady's novel framework for transdisciplinary translation: Case studies in wildfire and hurricane response. *Journal of Climate Change and Health*, 9, 100193.

Jia, S., Kim, S. H., Nghiem, S. V., Doherty, P., & Kafatos, M. C. (2020). Patterns of population displacement during mega-fires in California detected using Facebook Disaster Maps. *Environmental Research Letters*, 15, 074029.

Jia, S., Kim, S. H., Nghiem, S. V., & Kafatos, M. C. (2019). Estimating live fuel moisture using SMAP L-band radiometer soil moisture for Southern California, USA. *Remote Sensing*, 11, 1575.

SELECTED AGU PRESENTATIONS

2025 Weather-related power outages and medical vulnerability: A spatiotemporal analysis for U.S. counties (poster); Bridging beliefs through climate-health communication (oral).

2024 Is ChatGPT the silver bullet to help international scientists become good communicators for science in English-heavy, mainstream channels? (invited); Weather-related power outages and medical vulnerability (oral).

2023 Wildfire-induced power outages in California wildland-urban interface communities (oral); RiskAware at the nexus of data analysis, environmental justice legal action, and community outreach (oral).

2022 Crowdsourced human mobility data for disaster response (AGU Central Theater); California communities at risk along the wildland-urban interface (oral).

TEACHING & CURRICULUM LEADERSHIP

Miami University | GEO 242 Mapping a Changing World; GEO 441/541 Geographic Information Systems; GEO/BIO 266 Climate Science Communication; HUM 320 Humanities Teaching Lab.

Curriculum innovation | Leads project-based GIS education, an Ohio-centered geospatial data initiative, climate-science communication instruction, and 3D spatial storytelling of urban change.

Teaching recognition | Miami University Center for Teaching Excellence Major Grant (2024) supporting AI-augmented, portfolio-centered geospatial education.

STUDENT MENTORING & PROFESSIONAL SERVICE

Graduate advising | Committee chair for Slade Laszewski (Geography) and Martin Appiah (Geography); committee member for Pius Appau and Prince Obosu.

Undergraduate research | Mentored students in GIS, disaster resilience, wildfire exposure, nighttime-light analysis, greenspace, and spatial data science; student work has contributed to publications and conference presentations.

Peer review | Reviewer for NASA ROSES and journals including *Environmental Research Letters*, *Environmental Research Communications*, *Science of the Total Environment*, *Remote Sensing*, and *International Journal of Digital Earth*.