Marísa Macías

512-934-3403 | mamacias2123@gmail.com | Westminster, Colorado

www.linkedin.com/in/marisa-macias

EDUCATION

Colorado School of Mines, Golden, CO **M.S. December 2023**

Humanitarian Engineering & Science, Interdisciplinary Track

Thesis: "Equity-Focused Data and User-Centered Design in Earthquake Emergency Management Decision-Making"

- Macías, M., Reddy, E., Knodel, E., Loos, S. (2026). Operationalizing Equity: How Disaggregated Risk Metrics Support Equity in Emergency Management. Earthquake Spectra. https://doi.org/10.1002/esp4.70035

Colorado School of Mines, Golden, CO **B.S. December 2021**

Geological Engineering, Concentration in Geotechnical Engineering

Honors Minor in Public Affairs

Minor Practicum: "Bringing Restorative Justice to Colorado School of Mines"

CERTIFICATIONS

- Google UX Design Professional Certificate
- Incident Qualification Card (Technical Specialist)
- Federal Emergency Response Official
- Introduction to Incident Information Certificate
- Hootsuite Enterprise Certification
- Wilderness & Remote First Aid
- CPR & AED

SKILLS & STRENGTHS

Qualitative Research: Interviewing, focus groups, participant observation, qualitative coding, inductive analysis

Computer: ArcGIS Pro (Basic), GitHub (Basic), Markdown (Basic), Python (Basic), Microsoft Office, Google Suite, Drupal 9 CMS, WordPress, ATLAS.ti, NVivo, Google SketchUp, Canva

Communication: Science communication, risk communication, incident information, public speaking, social media content management

Project Management Programs: Notion, ClickUp

Other: Project management, project coordination, event coordination, leadership and teamwork skills

PROJECTS

Stakeholder Engagement for Water-Hazards Science and Response Project **April 2025 - present**

- Acting as the project coordinator, supporting the project manager in project logistics such as scheduling focus groups.
- Conducting focus groups with a variety of stakeholders, including federal- and state-level decision-makers.
- Performing qualitative coding for analysis of results.

User Experience (UX) Testing of Hazard Event Webpages **March 2025 - present**

- Acting as the project coordinator for the project, handling participant and personnel scheduling, equipment procurement, and other logistics.
- Conducting UX research with a variety of users, including federal- and state-level response personnel, to gain feedback on earthquake and landslide hazard event pages.
- Analyzing results to provide event page designers with actionable feedback.

User Needs Assessment for Equitable and Actionable Earthquake Information **April 2022 - February 2024**

- Worked with a multidisciplinary group to conduct user engagement through user-centered design.
- Conducted focus groups with a variety of disaster risk reduction professionals, including response personnel and other decision-makers.
- Analyzed focus group data through qualitative coding using ATLAS.ti.
- Contributed to the development of earthquake information products for effective risk communication.
- Led the development of a usability testing workshop for earthquake information products.

Alaska Landslide Hazards **May 2021 - May 2024**

- Participated in fieldwork in a remote environment to map rock mass qualities.
- Contributed to the creation of a fact sheet publication about the field campaign for residents of Whittier, AK.
- Contributed to the creation of a geonarrative about the monitoring efforts for the Barry Arm landslide.
- Engaged with local stakeholders to better understand their needs to produce accessible information.
- Communicated with interagency partners to organize outreach efforts.

EMPLOYMENT

University of Michigan – Project Manager **September 2025 – present**

- Assisting the PI with project management through Notion.
- Scheduling meetings for AIDD Labs and related groups.
- Monitoring AIDD Labs' members progress, delegating tasks, and setting deadlines.
- Assisting with AIDD Labs website content management using Markdown in VS Code and Github.

U.S. Geological Survey – Geologist **January 2024 – present**

- Conducting usability research for various hazard information products.

- Contributing to a variety of science communication efforts for the Landslide and Earthquake Hazards Programs, including organizing and conducting K12 and community outreach, managing social media accounts, and creating content for public distribution.
- Assisting with Geologic Hazards Science Center website content management using Drupal 9 CMS.
- Participating in the Science Communication and Landslide Hazards Program Social Media & Outreach committees.

U.S. Geological Survey – Physical Science Student Trainee **May 2021 – January 2024**

- Contributed to a variety of science communication efforts for the Landslide and Earthquake Hazards Programs, including organizing and conducting K12 and community outreach, managing social media accounts, and creating content for public distribution.
- Conducted geologic mapping fieldwork in Prince William Sound, Alaska.
- Assisted with Geologic Hazards Science Center website content management using Drupal 9 CMS.
- Participated in Diversity, Equity, & Inclusion and Science Communication committees.
- Founded the Landslide Hazards Program Social Media & Outreach Committee.

Colorado School of Mines – Lead Peer Educator **August 2019 – May 2023**

- Led trainings, workshops, and student outreach to create culture change on campus.
- Provided education on healthy relationships, mental health, and personal wellness.
- Additional leadership responsibilities included leading group meetings, organizing more events, and mentoring other peer educators.

Colorado School of Mines – Title IX Website Manager **May 2020 – November 2022**

- Managing website content for the Office of Institutional Equity & Title IX at Colorado School of Mines.

Colorado School of Mines – Peer Mentor **February 2018 – December 2021**

- Led a section of the Freshman Success Seminar course each fall.
- Acted as a resource for new students.

Colorado School of Mines – Writing Tutor **August 2020 – December 2020**

- Helped students revise and edit their writing pieces for class.

Colorado School of Mines – Restorative Justice Assistant **June 2020 – August 2020**

- Researched restorative justice policies and procedures on college campuses and for gender-based discrimination.
- Helped create the Facilitation Guide for use by professionals in gender-based discrimination conflict resolution.
- Provided feedback on other restorative justice procedures from a student perspective.

Colorado School of Mines – CAD Teaching Assistant **January 2020 – May 2020**

- Helped plan and teach a class on Google SketchUp.

Colorado School of Mines – Event Coordinator **January 2019 – March 2020**

- Planned a series of events for the McBride Honors Program's 40th Anniversary Celebration.
- Collaborated with internal and external partners for events.

Nicholson Construction – Geotechnical Engineering Intern **May 2019 - August 2019**

- Edited and developed SketchUp and 2D AutoCAD site layouts and designs based on engineer feedback and blueprints.
- Helped edit and construct Excel workbooks for different purposes, including construction takeoff quantities and Gantt charts.
- Communicated with product manufacturers to research product capacities, abilities, loading requirements, and pricing.

AWARDS

- Special Thanks for Achieving Results (STAR) Award – January 2025
    - Awarded for contributing to the communication efforts during the Hurricane Helene landslide hazards response.
- STAR Award – September 2024
    - Awarded for contributing to a positive office atmosphere through the Community Connections Committee.
- Outstanding Graduate Student in Humanitarian Engineering and Science – December 2023
    - Chosen by faculty in the Humanitarian Engineering and Science program, this award is presented to graduate students whose research or practicum project demonstrates great potential to improve the lives of populations historically under-served by engineering and science.
- STAR Award – August 2023
    - Awarded for organizing the GHSC New Hire Summer Seminar Series and 1st Annual GHSC Intern Research Symposium.
- STAR Award – July 2022
    - Awarded for organizing and hosting the GHSC Summer Seminar Series for New Employees.
- Hispanic Scholarship Foundation (HSF) Scholar Distinction – December 2022

PUBLICATIONS, PRODUCTS, & DATA RELEASES

Macías, M., Reddy, E., Knodel, E., Loos, S. (2026). Operationalizing Equity: How Disaggregated Risk Metrics Support Equity in Emergency Management. Earthquake Spectra. https://doi.org/10.1002/esp4.70035

Loos, S., **Macías, M.**, Karr, M., Peek, L. (2026). Beyond deaths and dollars: The modeling metrics that support equity focused disaster risk management. Earthquake Spectra. https://doi.org/10.1002/esp4.70009

Restrepo-Osorio, D.L., Ebanks, D.V., Drakes, O.O., Rivera Gonzalez, P.M., Bruce, J.L., **Macias, M.A.**, 2025, Stakeholder Engagement for Water-Hazard Science and Response in the USGS Rocky Mountain Region: U.S. Geological Survey data release, https://doi.org/10.5066/P139BWQ7

Belair, G.M., Lahusen, S.R., Avdievitch, N.A., Collins, A.L., Schaefer,L.N., Barnhart, K.R., McCreary, M., Baxstrom, K.W., Rosenkrans, H.S., and **Macias, M.A.**, 2024, Rock mass quality and structural geology observations in Prince William Sound, Alaska (2022): U.S. Geological Survey data release,

https://doi.org/10.5066/P13RFF9F.

Coe, J.A., Belair, G.M., Avdievitch, N.N., Lahusen, S.R., **Macias, M.A.**, Collins, B.D., and Staley, D.M., 2024, Rock mass quality and structural geology observations in northwest Prince William Sound, Alaska from the summer of 2021: U.S. Geological Survey data release, https://doi.org/10.5066/P9UBHS4Q

Macias, M. (2023). (thesis). Equity-focused data and user-centered design in earthquake emergency management decision-making. Colorado School of Mines. Retrieved from https://repository.mines.edu/entities/publication/47b52826-3ac4-48da-bb43-745506dd31a1.

Siebert, C., **Macias, M.**, & Ellison, S. (2023). Prince William Sound Landslide Hazards Project Overview. U.S. Geological Survey. Retrieved from https://www.usgs.gov/media/videos/prince-william-sound-landslide-hazards-project-overview.

Baxstrom, Kelli W. and **Macias, Marisa**, 2022, Monitoring Efforts at the Barry Arm Landslide; ArcGIS StoryMap; https://storymaps.arcgis.com/stories/80714d492b804d92869e155cd6851687

Macias, M.A., Barnhart, K.R., Staley, D.M., 2022, New model of the Barry Arm landslide in Alaska reveals potential tsunami wave heights of 2 meters, values much lower than previously estimated: U.S. Geological Survey Fact Sheet 2022–3020, 2 p., https://doi.org/10.3133/fs20223020.

PRESENTATIONS

Macias, M., McBride, S.K., Davis, A., Palermo, L., Hunter, E., Pope, I. (2026, April 14-18) Used and useful: Usability research on earthquake hazards event pages [Oral presentation]. Seismological Society of America Annual Meeting, Pasadena, CA, United States.

Macias, M., Loos, S., Reddy, E., Knodel,. E., McGowan, S. (2026, April 14-18) Operationalizing Equity: Assessing the Usability of Near-real-time Earthquake Information for Supporting Impacted Communities [Poster presentation]. Seismological Society of America Annual Meeting, Pasadena, CA, United States.

McBride, S. K., & **Macías, M.** (2025, April). Used and useful: Conducting usability research on hazard event pages. USGS Geologic Hazards Science Center Seminar. Golden; Colorado.

Macias, M., Loos, S., Reddy, E., Wald, D., Knodel,. E., McGowan, S., Marano, K. (2025, April 14-18) Assessing the Usability of Near-Real-Time Earthquake Information for Supporting Impacted Communities [Poster presentation]. Seismological Society of America Annual Meeting, Baltimore, MD, United States.

Pope, I., **Macias, M.**, Stoian,. C., McBride, S., Lin, K., Earle, P., Wald, D. (2025, April 14-18) Scientific Storytelling to Improve Earthquake Shaking and Impact Communication [Poster presentation]. Seismological Society of America Annual Meeting, Baltimore, MD, United States.

Schaefer, L.N., Bilderback, E., Allstadt, K., Baxstrom, K., Bedinger, E., Belair, G., Burgi, P., Carlson Dunlap, R., Cerovski-Darriau, C. Chirico, P., Collins, E., Ellison, S., Einbund, M., Godt, J., Grant, A., Fitzpatrick, F., Hall, S.R., Hoch, O., Jones, E., Kostelnik, J., **Macias, M.**, Martinez, S., McBride, S., Merschat, A., Miles, C., Mirus, B., Murphy, C., Palermo, L., Rengers, F., Riker, J., Schmitt, R., Schulz, W., Slaughter, S.L., Toney, L., West, J., Bozdog, N., Jurgevich, J., Korte, D., Sas, R., Veach, D., Witt, A., Jackson, W., Moore, P., Amatya, P., Soobitsky, R., Stanley, T., Bauer, J., Fuemmeler, S., Latham, R., Crawford, M., Capps, D., Chastain-Carpenter, L., 2024, Multi-agency landslide emergency response efforts and insights after Hurricane Helene, Abstract NH11D-01, Presented at AGU Fall Meeting, Washington, D.C., December 9-13 2024.

Macias, M., Hobbs, T., Loos, S., Saunders, J., Wald, D. (2024, April 29-May 3) Creating actionable earthquake information products [Conference session]. Seismological Society of America Annual Meeting, Anchorage, AK, United States.

Macias, M., Loos, S., Reddy, E., Wald, D., Knodel,. E., McGowan, S., Marano, K. (2024, April 29-May 3) Improving the Usability of Near-Real-Time Earthquake Information through Earthquake Scenario Exercises [Oral

presentation]. Seismological Society of America Annual Meeting, Anchorage, AK, United States.

Macías, M. (2024, April). Experience in Risk Communication as a USGS Scientist. HASS425/525 Risk Communication. Colorado School of Mines, Golden, CO.

Chandrasekhar, D., Lin, Y.C., Velasco, A., Weidner, J., **Macías, M.**, Alvillar, M. (2024, April 9-April 12) Collective Impact's role in uniting earthquake science and engineering for more resilient futures [Panel]. Earthquake Engineering Research Institute Annual Meeting, Seattle, WA, United States.

Devora Cigarroa, K., **Macías, M.**, Stevenson, L. (2023, October). Collecting and analyzing qualitative data in human-subject research. EDNS 479/579 Community-Based Research Methods. Colorado School of Mines, Golden, CO.

Macias, M., Karr, M., Loos, S., Peek, L., Ludwig, K., Reddy, E., Wald, D., Knodel, E. (2023, July 9-12) Co-Designing Actionable Earthquake Impact Products to Support Disaster Management [Poster presentation]. Natural Hazards Workshop, Broomfield, CO, United States.

Macias, M., Loos, S., Reddy, E. (2023, April 5-6) Designing Earthquake Scenario Exercises to Evaluate Actionable Earthquake Impact Products [Poster presentation]. Colorado School of Mines Graduate Research and Discovery Symposium, Golden, CO, United States.

Macias, M., Loos, S., Reddy, E. (2023, March 23-27) Developing Earthquake Scenario Exercises to Evaluate Actionable Earthquake Information Products [Poster presentation]. Association of American Geographers Annual Meeting, Denver, CO, United States.