

# MIA MITCHELL

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## EDUCATION

- 2025 - Present **Ph.D.**, University of Washington, School of Environmental and Forest Sciences  
Dissertation: Quantifying Resilience to alternative stable regimes in wet maritime temperate forests of the Western Cascades in Washington and Oregon, USA  
Advisor: Dr. Brian Harvey
- 2019 - 2023 **B.S.**, Brown University, Institute at Brown for Environment and Society  
Honors Thesis: Spatial contagiousness of tree mortality across Barro Colorado Island, Panamá  
Advisor(s): Dr. Jim Kellner; Dr. KC Cushman

## ACADEMIC AND PROFESSIONAL EXPERIENCE

- 2025 - Present **Graduate Research Assistant**, School of Environmental and Forest Sciences, University of Washington, Seattle, WA
- 2024 - 2025 **Postbaccalaureate Researcher**, Earth and Environmental Sciences Division, Los Alamos National Laboratory, Los Alamos, NM
- Developed a software that quantified forest structure from satellite imagery, utilizing convolutional neural networks with Dr. Charles Abolt
  - Enhanced software that integrated FIRETEC (fire behavior model) with ELM-FATES (vegetation demography model)
  - Processed lidar on arctic shrublands from Teller Site, AK for DOE's NGEE-Arctic
- 2022 - 2023 **Research Intern**, Quantitative Forest Ecology Laboratory, Smithsonian Tropical Research Institute, Panama, Panamá
- Analyzed landscape-level variation in forest structure and dynamics with mobile laser scanning and drone photogrammetry with Dr. Helene-Muller and Dr. KC Cushman
  - Assessed canopy crown damage, measured forestry demography attributes, and installed wind sensors on large trees across Barro Colorado Island with Pablo Ramos and Dr. Toby Jackson
  - Processed and analyzed annual drone photogrammetry data of canopy disturbances across Barro Colorado Island
- Summer 2021 **Naturalist**, Center for Alaskan Coastal Studies, Homer, Alaska
- Facilitated educational hikes discussing the history, ethnobotany of native flora, forest ecology, and geological processes of Kachemak Bay, AK (3-10 miles)
  - Mapped unmanaged trails in GIS
  - Taught ecology to elementary school students (Boys and Girls Club of Kenai Peninsula)
  - Collected sea star wasting syndrome samples in the intertidal zone of Peterson Bay, Alaska
- Summer 2021 **Geographic Information Systems Intern** [Remote], Interior Alaska Land Trust, Fairbanks, AK
- Developed a conservation priority map of land parcels in GIS based on habitat suitability
  - Compared land use change with historical aerial imagery to satellite imagery for stakeholders
- 2017 - 2018 **Wildlife Rehabilitation Intern**, Chattahoochee Nature Center, Roswell, GA
- Performed animal husbandry duties for raptors, beavers, turtles, and snakes
  - Educated the community about the health and ecosystem services of the Chattahoochee River Basin in front of house and during exhibitions

## TEACHING EXPERIENCE

- 2022            **Undergraduate Teaching Assistant**, Sheridan Center for Teaching and Learning, Brown University
- Redesigned class curricula with anti-racist topics for ARCH 1870, Environmental Archaeology, with Dr. Dan Plekhov and Dr. Zachary Dunseth
- 2021 - 2022    **Undergraduate Teaching Assistant**, Biology Department, Brown University
- Facilitated weekly office hours and graded assignments for BIOL 0210, Diversity of Life, taught by Dr. Jim Kellner

## GRANTS, FELLOWSHIPS, & AWARDS

- 2026            NSF Graduate Research Fellowship Program – Honorable Mention
- 2025            American Geophysical Union (AGU) Biogeosciences Travel Grant [\$1300]
- 2025            Graduate Student Excellence & Recruitment Award, University of Washington
- 2025            Achievement Rewards for College Scientists (ARCS) Fellowship [\$22500]
- 2023            Summer Research Award, Institute at Brown for Environment and Society [\$4000]
- 2022            Data Science Fellowship, Data Science Institute, Brown University [\$1000]
- 2022            Smithsonian Internship Award, Maxell-Hanrahan Foundation [\$3750]
- 2021            SPRINT-LINK Award, Brown University [\$4000]
- 2020            Undergraduate Teaching and Research Award, Brown University [\$4000]
- 2019            Joukowsky Archeology Research Apprenticeship [\$500]
- 2019            The Gates Scholarship, The Bill and Melinda Gates Foundation

## SCIENCE COMMUNICATION

- 2021            [History of Development in Fairbanks](#), Interior Alaska Land Trust.
- 2021            [Story of Ecological Succession](#), Kachemak Currents. KBBI Alaska Public Radio Segment AM 890.
- 2020            [Miami-Dade County: A Legacy of Environmental Injustice](#), Brown University & University of Miami.

## MANUSCRIPTS AND PUBLICATIONS

- [1] **Mitchell, M.**, Abolt, C., Crennen, Z., Marcato, A., Atchley, A. *CHMer (Canopy Height Model-er): Accessible Deep Learning for Sub-Meter Canopy Height Predictions*. In preparation. Journal of Open Source Software. Los Alamos National Laboratory.
- [2] **Mitchell, M.**, Cushman, K.C., Muller-Landau, H., et al. *Spatial Contagiousness of Canopy Disturbances in Lowland Tropical Forest*. In preparation, Smithsonian Tropical Research Institute.
- Collins, A.D., Dillard, S.L., **Mitchell, M.**, et al. *Lidar User Input and Processing Intercomparison*. In preparation, Los Alamos National Laboratory.
- [3] **Mitchell, M.**, Muller-Landau, H. C., Vasquez, V., Cushman, K., Garcia, M., Ramos, P., & Villareal, P. (2023). *Digital Surface Models, Barro Colorado, 2018-2023* [Dataset]. <https://doi.org/10.25573/data.24021381.v2>

## PRESENTATIONS

- [1] “Yacolt Fire reburns: A retrospective look into early 20th century drivers of reburns in the Pacific Northwest,” Northwest Scientific Association, *Olympia, WA*, March 2026.
- [2] “CHMer (Canopy Height Model-er): Accessible Deep Learning for Sub-Meter Canopy Height Predictions,” American Geophysical Union, *New Orleans, LA*, December 2025
- [3] “Spatial Contagiousness of Canopy Disturbances in Lowland Tropical Forest,” American Geophysical Union, *Washington, DC*, December 2024
- [4] “Spatial Contagiousness of Canopy Disturbances on Barro Colorado Island,” Smithsonian Tropical Research Institute Symposium, *Panama, Panama*, July 2023