SPENCER HURT

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EDUCATION

New Mexico Institute of Mining and Technology

Graduate Student in Hydrology

January 2025 – August 2025 Socorro, NM

University of Colorado, Boulder

Bachelor of Arts in Physics and Planetary Science

• Summa Cum Laude

May 2020 - May 2022 Boulder, CO

SELECT WORK EXPERIENCE

New Mexico Tech Department of Earth and Environmental Science January 2025 – August 2025 Graduate Research Assistant Socorro, NM

- Operated a sediment monitoring station on an ephemeral tributary to the Rio Grande and validated models of sediment transport (HEC-RAS and AdH) in arid and post-fire settings.
- Utilized satellite imagery and GIS software to monitor trends in mesic vegetation along the Gila River and identify relationships with trends in groundwater levels (in collaboration with The Nature Conservancy).
- Operated drones and utilized imagery to generate digital surface models (DSMs) and vegetation maps.

Gila National Forest

Watershed and Wildlife Technician

June 2025 – August 2025 Silver City, NM

- Assisted with low-tech process-based stream restoration and revegetation at Centerfire and and Willow Creeks to mitigate the effects of wildfire and overgrazing.
- Conducted presence/absence surveys for protected species including Mexican Spotted Owl, Chiricahua Leopard Frog, Chihuahua Chub, and Loach Minnow. Collected eDNA samples to monitor fish species.
- Mapped and removed invasive plants and aquatic species from river corridors throughout the forest.
- Monitored post-fire water quality in the Mimbres River, including pH, TDS, conductivity, and DO.
- Evaluated soil burn severity in the Trout Fire burn scar and developed hydrologic models (using HEC-HMS) of the Mimbres Watershed to identify at-risk infrastructure and habitat.

Wyoming Infrared Observatory (University of Wyoming) Engineer

March 2023 - December 2024 Laramie, WY

- Led facility maintenance and upgrades, including telescope motion control, instrumentation and software development, IT and communication solutions, observatory structures, and road conditions.
- Maintained and operated tools and equipment, including UTVs and a Tucker Sno-Cat.
- Managed purchasing and facility budget while working with faculty to write grant proposals.
- Collaborated with stakeholders including the Bureau of Land Management, Albany County Sheriff's Office, U.S. Forest Service, Wyoming Department of Transportation, and local ranchers to ensure effective land management and use of facilities at the summit of Jelm Mountain.
- Coordinated outreach programs including tours of the facility and supported an NSF-funded Research Experience for Undergraduates program.

Citizens for School District 51

Community Organizer

July 2017 - November 2017 Grand Junction, CO

• Recruited and trained volunteers, coordinated door-to-door canvassing, tabled public events, managed social media, and tracked donations for successful bond and mill levy ballot measures that provided funding for improvements to local public school infrastructure.

Stream Restoration, Invasives Removal, and Native Plant Revegetation

42 hours

Quivira Coalition (NM); Socorro Soil and Water Conservation District (NM); Platte River Revival (WY)

- Implement low-tech process-based stream restoration projects, primarily using Zeedyk structures.
- Mechanically remove invasive plants from riparian corridors, including Russian olive and tamarisk.
- Reestablish native vegetation in riparian corridors via live pole planting and grass seeding.

Bird Population Surveys

70 hours

North American Breeding Bird Survey (NM & WY); Intermountain West Shorebird Survey (NM & WY); Colorado Parks and Wildlife (CO)

- Conduct surveys and follow strict protocols to support research on North American bird population trends.
- Assist with waterfowl banding at Arapaho NWR.

Amphibian Population Surveys and Chytrid Monitoring

83 hours

University of Wyoming (WY); U.S. Fish and Wildlife (WY); Turner Endangered Species Fund (NM)

- Conduct surveys and follow strict protocols to support research on amphibian populations, including endangered and threatened species like the Wyoming Toad and Chiricahua Leopard Frog.
- Collect samples to monitor the spread of chytrid in wild amphibian populations.

Mammal Population Surveys

20 hours

U.S. Fish and Wildlife (CO); University of Wyoming (WY)

- Conduct nighttime surveys and setup traps for Black-footed Ferrets at Rocky Mountain Arsenal NWR.
- Survey for Moose and other mammals in Medicine Bow National Forest.

Habitat Gardening and Landscaping

16 hours

Laramie Habitat Hero (WY); Bosque del Apache NWR Desert Arboretum (NM)

 Maintain native plant gardens and promote landscaping practices that benefit wildlife via social media, public events, and collaboration with local nurseries.

Outdoor Education 280 hours

Harvard First-year Outdoor Program (MA)

• Led week-long backpacking trips to help incoming students build a sense of community and prepare for the school year. Required strong interpersonal skills and extensive outdoor and medical training.

TRAINING AND CERTIFICATIONS

- Certified Wyoming Naturalist (2024)
- Wilderness First Responder and CPR (Certified Through 2026)
- FAA Part 107 UAV Remote Pilot (Certified Through 2027)

SELECT AWARDS AND FELLOWSHIPS

- New Mexico Geological Society Kottlowski Award (2025, Statewide)
- Astronaut Scholarship (2021, National)
- Barry Goldwater Scholarship (2021, National)

ADDITIONAL INTERESTS AND SKILLS

- Birding and Wildlife Photography (eBird Photos)
- Native Plant Identification and Appreciation (iNaturalist Observations)