Haley Freeborn

540.797.6398 | hsf4rg@virginia.edu | Grand Junction, CO

Driven by a deep appreciation for the natural spaces which have shaped my own life, I am committed to protecting natural resources for the use and enjoyment of current and future generations. With a strong foundation in geospatial analysis, land management, and collaborative planning, I bring a unique skillset and interdisciplinary perspective to working across jurisdictional, socioeconomic, and environmental boundaries. I am inspired by innovative applications of geospatial tools to ground landscape-scale decisions in science, promote equitable public access, and provide sustainable outdoor recreation opportunities.

Education

University of Virginia, College of Arts & Sciences, Charlottesville, VA ***May 2024***
Major: B.S. Environmental Sciences | **Minor**: Urban & Environmental Planning | **GPA**: 3.97/4.00
Honors: Dean's List Fall 2021, Spring 2022, Spring 2023.
Relevant Coursework: Advanced GIS; GIS Methods; GIS Watershed Resilience; Historical Geospatial Visualization; GIS and Digital Visualization for Planners; Environmental Law; Planning in Government; Quantitative Methods.

Work Experience

Intern, National Conservation Lands Division (NLCS), Bureau of Land Management (BLM) ***Aug. 2024 - Present***

- Wrote draft content for and synthesized engagement data to support revision of 15-year NLCS Strategy, which provides national-level guidance for federally protected lands including National Conservation Areas, Monuments, Trails, Wildernesses, and Wild & Scenic Rivers.
- Developed GIS StoryMap communicating the history, policies, priorities, and strategic planning process of the NLCS, utilizing ArcGIS Pro to produce unit shapefiles, edit attribute tables, and standardize data to spatially analyze visitation, exported to and visualized with ArcGIS Online.
- Provided suggestions for improvements in GIS data management policies based on issues encountered during geospatial analysis, identifying specific inconsistencies during NLCS unit data input process from field offices to improve standardization, accuracy, and efficiency of updates.
- Mapped BLM CO lands with wilderness characteristics, updating public land boundaries, road alignments, and points of interest with FieldMaps.
- Analyzed quantitative and qualitative data with Excel (Nov 2023 - Jan 2024) from BLM staff survey, authoring a report to guide strategy revision.

Intern, Planning Division, Denver Service Center (DSC), National Park Service (NPS) ***May 2023 – Sept. 2023***

- Applied visitor-use management principles (VUM) and geospatial data as a project specialist, collaborating with internal and external partners to develop multiple place-based park-planning and environmental impact analysis documents, emphasizing climate resiliency and equal access.

Program Assistant, Wild Virginia 501(c)(3) nonprofit organization, Charlottesville, VA ***Aug 2022 – May 2023***

- Utilized geospatial techniques with online, .pdf, and physical maps, and conducted research to identify locations where endangered species in southwest Virginian stream ecosystems are impacted by the Mountain Valley Pipeline and/or Polyfluoroalkyl Substances (PFAS).
- Published, drafted, and designed public communication documents, including press releases, blogposts, and educational graphics.

Environmental Field Research Assistant, Virginia Polytechnic Institute and State University ***Mar. 2018 – Aug. 2021***

- Collected and analyzed large volume of geospatial field survey data, using distance measuring sensors and GPS Trimble, assessing environmental impact of trails, campsites, and other infrastructure from backcountries of Desolation Wilderness, CA (2018); Mount Assiniboine Provincial Park in Canada (2019); and Crater Lake National Park, OR (2021). Recommended sustainable routes and sites to park staff.

Relevant Geospatial Projects

GreenRoute: Optimized public transportation route to connect historically underserved populations in Charlottesville, VA to community parks. ***2024***
Sustainable Campsite Tool: Automated process, exported from ArcGIS Pro as python script, for identifying sustainable backcountry campsites. ***2024***
Strategic Stream Daylighting: Identified optimal locations to restore above-ground streamflow with land use planning and environmental data. ***2024***
Delaware River Recreation: Used LIDAR bathymetry and streamgage data to estimate flow depth at river forks, establishing safety thresholds. ***2023***
Archived Map Analysis: Georeferenced and analyzed original 17th- and 18th-century colonial North American maps, converting cartographic features into shapefiles. Highlighted embedded histories and misrepresentation of Indigenous populations within interactive StoryMaps. ***2023***
Nexus of the Corner: Developed a StoryMap analyzing transportation, architecture, and urban vitality within Charlottesville's 'Corner', including 3D Scene tour of the area. Used multipatch editing and texture application from personal photos to construct a realistic 3D model of iconic building. ***2023***

Affiliations, Trainings, and Other Skills

Member, Raven Society, oldest and most prestigious academic honor society at UVA. ***2024 – Present***
Member, Society for Outdoor Recreation Professionals (SORP). ***2024 – Present***
Conflict Competency Training, Wallace Stegner Center for Environmental Dispute Resolution. ***2024***
ESRI (ArcGIS Pro, Online, ModelBuilder, FieldMaps), spatial analysis, data management, digital editing, automation.
Other: Microsoft Office Suite, Adobe Creative Suite, R Studio, Python, Arcade, technical writing, team facilitation.