IT/GIS Manager and GIS Dev

Jenny Herring

QUALIFICATIONS

- ✓ Professional Science Master (PSM) Geospatial Information Science and Technology
- ✓ 7 years' supporting IT and Geospatial initiatives
- ✓ Key team member on Innovate's 2018 Esri Innovation award-winning Data Management Tool (DMT), a customized COTS product to improve the quality, consistency, and transparency of U.S. EPA Region 9 geospatial resources

CITIZENSHIP

Jenny Herring is a citizen of the United States of America

EDUCATION, CERTIFICATIONS, AND TRAINING

- P.S.M. 2015, North Carolina State University - Geospatial Information Science & Technology Certification
- B.A. 2013, University of North Carolina Chapel Hill - Anthropology (Emphasis in Archaeology)
- Certified ScrumMaster (CSM)

TECHNOLOGIES

- **Software** – ArcGIS Desktop, ArcGIS Enterprise, ArcGIS Enterprise Sites, ArcGIS Online, ArcCatalog, ArcGIS Data Store, ArcGIS Hub, ArcGIS Portal, ArcGIS Pro, ArcGIS Server, ArcGIS StoryMaps, ArcGIS Web Adaptor, SQL Server Management Studio, GitHub, Google Drive, Snagit, Figma, Lucidchart
- **APIs & Frameworks** - ArcPy, Bootstrap
- **Business Skills** – Building Geoprocessing Tools, Building ETL Processes, Cartography, Database Design, Metadata Creation/Data Cataloging, Digitization (Georeferencing/Geocoding), Geospatial Analysis, Tabular Data Analysis, Tabular Data Visualization, Graphic Design, Indoor Facility Mapping, Writing Documentation/Training Materials, Business Process Improvement/Automation, Administrative Support, Agile/Scrum Methodology, Creating Webinars, Creative Problem Solving, Cross-functional Team Leadership, Customer Service, Data Entry, Data Management, Design Thinking, Needs Assessments, Product Life Cycle Management, Program/Project Management, Requirements Gathering and Discovery, Strategic Planning, Teaching, Technical Advisory, Visual Storytelling
- **Database** - Microsoft SQL Server
- **Platforms** – Windows Desktop, Windows Server
- **Programing Languages** – Python, HTML, HTML5, XML

EDUCATIONAL AND PROFESSIONAL DEVELOPMENT HISTORY

Geospatial Analyst/Developer/Manager, Innovate! Inc., 3/2016-Present

Manages a team of 9 GIS analysts and technicians

Acts as Project Manager for the U.S. EPA Region 9 contract, which includes General Geospatial Support

to EPA Region 9, the EPA Superfund Division, and Guam and the Commonwealth of the Northern Mariana Islands
Manages GIS projects for environmental applications; acts as Systems Manager for U.S. EPA Region 9 infrastructure, implementing database and server best practices and organization
Assists in design, development and maintenance of geospatial applications through concept, design and implementation, including Agile implementations
Supports personnel, clients and teaming partners utilizing GIS applications and software largely using the GitHub version control system with an Agile/Scrum approach

Project: ArcGIS Indoors Implementation Client: Environmental Protection Agency (EPA)
Served as a Scrum Master for the EPA implementation of Esri's ArcGIS Indoors, including a prototyping phase and data processing. Innovate coordinated with partners across EPA regions and offices to acquire GIS and CAD data for EPA facilities, convert the data to the Indoors data model, and process the data for use in the Indoor Map Viewer and Space Planner.

Project: Hawaii Wastewater Mapping; Client: Environmental Protection Agency (EPA)
Developed a user interface mapping tool to manage the Large Capacity Cesspool Program compliance and outreach efforts and assist with inspection targeting for the state of Hawaii. Established a framework to maintain, update, and expand data resources and access across EPA Region 9 Divisions/Offices.

Project: Data Management Tool (DMT); Client: Environmental Protection Agency (EPA)
Served as a principal developer and Scrum Master for the DMT, winner of Esri's 2018 Innovation award, in response to Region's 9's need for up-to-date and accurate geospatial data. The application serves as a single point of entry to find resources and immediately identify their location, accuracy, and relevance from the Region's Enterprise Geospatial Database.

Project: San Francisco Bay Water Quality Improvement Fund (SFBWQIF); Client: Environmental Protection Agency (EPA)
Developed internal- and public-facing data management solutions for the SFBWQIF team, including a Django-based content management system, Esri StoryMap, and Qlik application. The grant program supports projects that enhance aquatic habitat, restore impaired waters, and reduce polluted run-off in the San Francisco Bay Area.

Project: Navajo Abandoned Uranium Mines (AUM) Data Portal; Client: Environmental Protection Agency (EPA)
Served as a developer and Scrum Master for the AUM Data Portal, a custom web-based application used to assist with management of environmental data and documentation generated during AUM investigation and remediation processes across the Navajo Nation.

Project: Travel Application; Client: Environmental Protection Agency (EPA)
Served as Scrum Master for the Region 9 Travel application, a custom web-based application used to assist with regional travel requests and reimbursement.

Project: Indian Nations Database Application; Client: Environmental Protection Agency (EPA)
Served as a developer and Scrum Master for the Indian Nations Database Application, a custom web-based application used to assist the region to centralize tribal data, including EPA and Tribal contacts, geospatial data, grant information, and reporting.

Project: Project Tracking Tool; Client: Environmental Protection Agency (EPA)
Served as a developer and Scrum Master for the Project Tracking Tool (PTT), a custom web-based application used to request and manage project work for several groups at EPA, including both Region 9 and Region 3.

Project: Emergency Response Support for California November 2018 Wildfires; Client: Environmental Protection Agency (EPA)
Served as a principal developer and member of 24/7 Emergency Response support team during the 2018 California wildfires to ensure Emergency Response virtual servers were in a state of readiness, including implementing the agency's first regional use of Esri's ArcGIS Monitor for 24/7 server resource and network monitoring. The team developed new tools, including a Fire Perimeter Tool to provide enhanced situational awareness for EPA-tracked facilities as the boundary of an active wildfire shifts, an automated reporting system programmed in Python to facilitate more efficient executive briefing reports, and a web-based GeoPlatform (ArcGIS Online) Account Request Tool during the Django framework to streamline administration of field teams.

Project: US Operations Geoviewer; Client: Catholic Relief Services (CRS)
Established and automated an Extract-Transform-Load process to migrate CRS's constituency and engagement information from Salesforce to an ArcGIS Enterprise environment, where a series of ArcGIS Server rest services were incorporated into a Web AppBuilder application and allow the US Operations division to better understand and manage the current and historical resources.

Project: WWF-SIGHT; Client: World Wildlife Foundation - Norway (WWF-Norway)
Supported development of automated data processing and reporting tools for incorporation in WWF-Norway's SIGHT tool. SIGHT is a spatial land-use and early warning system mapping tool used to compare development projects against key environmental data. The tools developed allowed stakeholders to select area(s) of interest anywhere on Earth, receive updates when development projects are updated, and to generate a custom report of all related assets in the area.

GIS Specialist, North Carolina Sea Grant, 11/2015 - 3/16
Conducted data inventory for watershed restoration projects on the North Carolina coast with a focus on identifying current and potential oyster restoration sites
Created a series of multimedia maps to establish a local school curriculum on shellfish/sustainability and to better inform local decision makers about environmental and economic benefits of aquaculture
Contacted organizations across the state that potentially had GIS data related to the oyster restoration project, including data on market locations, water quality, and state-based regulated waters and leases.
Assessed the GIS data sources, determined which ones were relevant to the Sea Grant, then used her GIS development skills to create an interactive story map (https://ncseagrant.ncsu.edu/oysters/) synthesizing the status of NC oyster growers and markets and providing additional information for both growers and buyers on how to get into the industry.
Created a compilation of existing spatial data showing the current status of the oyster industry, as a resource that buyers and growers can use to identify potential locations where the oyster industry can be further developed.

NASA DEVELOP Program Participant, National Aeronautics and Space Administration, 5/2015 - 8/15

Collaborated on interdisciplinary feasibility projects to address environmental and public policy issues and developed end products (cartographic, scripting, code, automated data retrieval, etc.) to assist project partners in future decision making.

Assessed the spatial-temporal relationship between post-burnout flooding and vegetation regrowth in the Southwest US using NASA Earth Observations Systems and NOAA Climate Data Records. Her work identified watershed recovery in the existing satellite records after historical natural disasters in Arizona to supplement the local management's post-fire warning systems in the absence of ground-based in situ monitoring systems.

Graduate Teaching Assistant, Center for Geospatial Analytics, North Carolina State University, 08/2014 - 12/2015

Facilitated weekly lessons for three graduate level GIS courses, including communicating expectations, providing support, and grading assignments through various digital media.

Collaborated with an instructional team to update and improve course material over multiple semesters.