



EXPERIENCE

GIS TECHNICIAN

January 2023 – Present

Oregon Department of Forestry, Forest Resources Division | Salem, OR

- Primary GIS editor for the Oregon Department of Forestry regulatory stream flow line layer. Developed a comprehensive Editing Manual to define Agency-wide GIS editing workflows and maintain data integrity
- Developed and delivered training for 11 stream flow line layer GIS editing and review workflows to meet legislative deadlines, including 3 cross-Agency and cross-Division workflows
- Met with technical and subject matter experts and to complete business needs analysis and define GIS product specifications
- Assisted with inter-Division, inter-Agency, and Contractor GIS coordination efforts to support the development of the Oregon Department of Forestry regulatory stream flow line layer required by the Private Forest Accord
- Developed custom Python scripts and geoprocessing tools to increase the efficiency of and automate Oregon Department of Forestry GIS workflows

WILDFIRE AND WATER QUALITY ANALYST | Internship

June 2022 – January 2023

Oregon Health Authority, Drinking Water Services | Eugene, OR

- Primary author for the *Oregon Wildfires: Impacts on Drinking Water Systems and Water Quality* project. Developed 5 products intended for both technical and non-technical, internal, and public audiences
- Organized cross-Agency and cross-institution collaboration and data sharing efforts to develop a report describing a complete picture of the impacts of the 2020 wildfires on Oregon's public water systems
- Standardized, aggregated, and organized into a relational database volatile organic compound detection data for over 1,700 sample locations in 23 public water systems impacted by the 2020 wildfires in Oregon
- Developed analysis and process automation algorithms for both spatial and tabular data with Python, the Pandas data analysis library, and the Esri ArcPy library

OREGON DEPARTMENT OF HUMAN SERVICES | Salem, OR

Project Intern | Internship

August 2021 – June 2022

Office of Research, Reporting, Analytics, and Implementation

- Created and presented materials detailing potential geospatial data contributions for ongoing Oregon Department of Human Services longitudinal dataset projects to Directors and Deputy Directors of collaborating State agencies
- Made recommendations and built products to facilitate the incorporation of geospatial data and GIS workflows into statewide longitudinal dataset development projects

Operations Specialist | Internship

June 2021 – July 2021

Office of Resilience and Emergency Management

- Built a prototype end-to-end case management system to track and resettle survivors of disasters in Oregon
- Situation Unit Leader for the Office of Resilience and Emergency Management Oregon Wildfires Taskforce for the 2021 fire season
- Provided GIS support for the Emergency Management Unit and compiled and distributed once- or twice-daily SITREPs to over 350 people and departments across Oregon state government

PROJECTS

FlickTools

Ongoing

- Developed 9 custom geoprocessing tools that expand the default ArcGIS Pro toolset to create more efficient and automated GIS workflows that suit Oregon Department of Forestry business needs
- Leveraged ArcGIS Pro Python Toolboxes, the Esri ArcPy library, and a modular, customizable package structure to make the toolset expandable and easily maintainable

Wildfire in Oregon

2022

- Examined the impact of Anthropogenic Climate Change and forest management practices over the last century on wildfire intensity, severity, and frequency in Oregon

- Conducted a literature review and developed 2 interactive maps to explore the impact of wildfire on human health and the built environment – especially with respect to differences in power, access, and vulnerability – using the 2020 wildfires in Oregon as a case study
- Developed personal preparedness and policy recommendations to increase resilience to wildfire in Oregon

Assembly Area Selection and Critical Bridge Identification in Coos County, Oregon **2020**

- Expanded on previous work done by DOGAMI to identify hazard, critical bridge, and assembly locations, focusing on the interior of the county not covered by previous analyses
- Identified 7 new assembly areas and 17 new critical bridges in the interior population centers of the county, increasing the number of people served by over 8,000

Site Report and Management Plan – East Hill Farm Site, Corvallis, OR **2021**

- Collected and compiled spatial and other data about the site, including locations of existing infrastructure and trails, hazards, important species, and demography for surrounding areas
- Made site management recommendations to the City of Corvallis for public education and new infrastructure, including an additional parking area, 6 interpretive signs, and 2 miles of new trails

Oregon Protected Area Land Cover Change **2021**

- Examined land cover change on GAP Status 1 and 2 protected areas in Oregon over 25-year period using LCMaP Land Cover Change raster data for years 1990-2015 and GAP-US protected area polygons
- Developed an automated raster clipping workflow using Python and the Esri ArcPy library to reduce manual processing time and speed up data analysis

SVITools **Ongoing**

- Generalized CDC Social Vulnerability Index workflow, allowing any tabular data to be used to develop custom Social Vulnerability Indexes at any spatial scale
- Developed an automated Social Vulnerability Index workflow using Python, the Pandas data analysis library, and the Esri ArcPy library to create easily reproducible tabular and spatial data products

EDUCATION

OREGON STATE UNIVERSITY | Cum Laude **June 2022**

- Bachelor of Science, Geography and Geospatial Science
- Minor, Computer Science
- Certificate, Geographic Information Science (GIS)

SKILLS AND CERTIFICATIONS

GIS: ArcGIS Pro, ArcGIS Online, ArcGIS Experience, ArcGIS Field Maps, ArcGIS StoryMaps

SOFTWARE DEVELOPMENT: Python, Arcade, C++, HTML, CSS, SQL, JavaScript

DATABASES: ArcSDE, Microsoft Access, MySQL

PROJECT MANAGEMENT: Product design and specification, asset management, release schedules, team management

COMMUNICATION: Communicating technical information to stakeholders, presentations, reports, trainings

WRITING: Reports, workflows, design documents, situation reports

INCIDENT COMMAND SYSTEM:

- Introduction to Incident Command System, ICS-100
- Basic Incident Command System for Initial Response, ICS-200
- An Introduction to the National Incident Management System, IS-700
- National Response Framework, An Introduction, IS-800
- Basic Emergency Operations Center Functions, IS-2200

VOLUNTEERING

TEAM RUBICON **November 2022 – Present**

- Assist in disaster and humanitarian recovery and disaster mitigation efforts in Oregon and other U.S. States

CASCADE VOLUNTEERS **October 2023 – Present**

- Assist with trail maintenance and wildfire recovery efforts for the Willamette National Forest