KADEN FLICK

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EXPERIENCE

WILDFIRE AND WATER QUALITY ANALYST | Internship **Spring 2022 – Present**

Oregon Health Authority, Public Health Division, Drinking Water Services | Eugene, OR

- 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 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 process automation algorithms for both spatial and tabular data.

OREGON DEPARTMENT OF HUMAN SERVICES | Salem, OR

Project Intern | Internship **Fall 2021 – Spring 2022**

Office of Research, Reporting, Analytics, and Implementation

- Made recommendations and built products to facilitate the incorporation of geospatial data and GIS workflows into statewide longitudinal dataset development projects.
- Compiled and presented potential geospatial data contributions for ongoing projects to Directors and Deputy Directors of collaborating State agencies.

Operations Specialist | Internship **Summer 2021**

Office of Resilience and Emergency Management

- Built an 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 daily SITREPS for over 350 people and departments across Oregon state government.

PROJECTS

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.
- Made recommendations for outfitting assembly areas with emergency supplies.

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 management recommendations and developed locations for new infrastructure, including an additional parking area, 6 interpretive signs, and 2 miles of new trails.
- Emphasized the role of public education surrounding invasive and native species to meet landowner and stakeholder management goals.

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 automated raster clipping workflow using Python to reduce manual processing time and speed up analysis.

Cascadia Subduction Zone Event Annotated Bibliography **2021**

- Conducted a literature review of government documents, media pieces, and lines of effort at both the state and federal level to understand the impacts that the CSZE will have on Oregon.
- Emphasized the human element of the CSZE by comparing it to the 2011 earthquake and subsequent tsunami in Japan.

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 based on solutions in published literature.

Social Vulnerability Index Automation **Ongoing**

- Generalized CDC Social Vulnerability Index workflow, allowing any tabular data to be used to develop combinations of custom Social Vulnerability Indexes at any spatial scale.
- Developed an automated Social Vulnerability Index workflow using Python 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)

RELEVANT COURSEWORK

Technical Education

- GEOG 360 – GIS I: Geographic Information Systems & Theory
- GEOG 361 – GIS II: Analysis & Applications
- GEOG 462 – GIS III: Programming for Geospatial Analysis
- GEOG 370 – Geovisualization: Cartography
- GEOG 480 – Remote Sensing I: Principles and Applications
- CS 340 – Introduction to Databases
- CS 361 – Software Engineering I
- CS 362 – Software Engineering II

Practical Application

- GEOG 451 – Planning Principles and Practices for Resilient Communities
- GEOG 452 – Sustainable Site Planning
- GEOG 430 – Resilience-based Natural Resource Management
- GEOG 332 – Climate & Health
- GEOG 324 – Ecological Biogeography
- GEOG 350 – Geography of Natural Hazards
- CS 290 – Web Development

SKILLS AND CERTIFICATIONS

GIS: ArcGIS Desktop, ArcGIS Online, ArcGIS Storymaps, ArcGIS Experience, ArcGIS Field Maps
Development: Python, Arcade, C++, HTML, CSS, SQL, JavaScript
Databases: Microsoft Access, MySQL
Project Management: Agile, team management, design and specification, project asset management, release schedules
Public Speaking: Presentations, reports, classes, trainings
Writing: Reports, memos, design documents, situation reports