

Owen Ferguson

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EDUCATION

University of Oregon

B.S. in Spatial Data Science & Technology and Data Science, GPA: 3.8

Jun 2026

Eugene, OR

EXPERIENCE

Student Geospatial Technician and Cartographer

Apr 2025 – Present

University of Oregon InfoGraphics Lab

Eugene, OR

- Built full-stack features for public interactive atlases produced with the U.S. Geological Survey, 11 state wildlife agencies, and Tribal partners using **JavaScript**, **HTML/CSS**, and **Mapbox GL JS**
- Designed the desktop and mobile experiences for the Western Migrations Viewer, condensing a layered atlas of roughly 250 tracked ungulate herds into an interface adopted directly into the production release
- Maintained production codebases for UN Convention on Migratory Species atlases, including the Atlas of Ungulate Migration (CaGIS 2025 Best in Show) and the Central Asian Mammals Atlas
- Authored an **ArcGIS Pro** toolbox in **Python** automating directional arrowhead symbology and exporting Mapbox-ready **WGS 84 GeoJSON** for the Ungulate Migration release pipeline
- Contributed to the UO Sustainability Dashboard, building interactive, dynamic data visualizations

GIS Analyst Intern

Aug 2024 – Dec 2024

Oregon Department of Energy

Salem, OR

- Pioneered the Renewable Energy Detection System research program, identifying **remote sensing** techniques to detect renewable energy systems across Oregon and improve internal department processes
- Developed a **machine learning** model that detects solar panel infrastructure on high-resolution raster imagery
- Interviewed 3 internal stakeholders, including an Oregon assistant CIO, to assess GIS and AI use

Research & Data Analyst Intern

Jun 2024 – Aug 2024

Oregon Department of Energy

Salem, OR

- Analyzed large datasets on irrigation, farms, and energy use in Oregon using **Excel** and **Power BI**
- Conducted 4 case studies through interviews with Oregon producers and industry experts
- Built an **ArcGIS StoryMap** to communicate the project narrative and preserve key insights

PROJECTS

discoverWiki | *Mapbox GL JS, TypeScript, PostGIS, GDAL, Cloudflare Workers, Supabase* May 2026 – Present

- Deployed discoverwiki.app, a **Mapbox GL JS** game that unlocks nearby Wikipedia articles as you explore
- Engineered a **PostGIS** pipeline ingesting Wikimedia dumps and U.S. Census **TIGER/Line** and Statistics Canada boundaries through **GDAL**, spatially joining articles to every city
- Served the catalog from **Cloudflare Workers** and **R2** behind an edge point-in-polygon API, with accounts and cross-device collection sync handled by **Supabase Auth** and **Postgres**

Dialectinator | *D3 (d3-geo, d3-delaunay), Next.js, React, TypeScript, Vercel*

Jun 2026

- Deployed dialectinator, a **Next.js** dialect quiz in the vein of the New York Times original
- Rendered kernel-smoothed probability surfaces over 3,221 U.S. counties and 293 Canadian census divisions using **D3** and **d3-delaunay** on **HTML canvas**, with no mapping SDK
- Implemented **Albers**, **Conic Equal Area**, and **Mercator** projections with Alaska and Hawaii insets

Cat Cafe Map | *Mapbox GL JS, TypeScript, Vite, Cloudflare Workers*

Jul 2026 – Present

- Deployed catcafes.owenferg.com, a searchable map of 215 verified cat cafes across the U.S. and Canada
- Built a **TypeScript** and **Mapbox GL JS** client fed by a pipeline that ingests **OpenStreetMap** via the **Overpass API**, geocodes through **Nominatim**, and publishes validated **GeoJSON**

TECHNICAL SKILLS

Web Mapping: Mapbox GL JS, D3.js, GeoJSON, vector tiles, projections & CRS, Overpass API, Nominatim

GIS: ArcGIS Pro (ArcPy), ArcGIS Online, StoryMaps, PostGIS, GDAL/ogr2ogr, GeoPandas, Rasterio, TIGER/Line

Languages: JavaScript, TypeScript, Python, SQL, R, C, HTML/CSS

Frameworks & Libraries: React, Next.js, Node.js, Vite, Pandas, NumPy, Vitest

Tools & Infrastructure: Cloudflare Workers/R2, Vercel, Supabase, Docker, Git, GitHub Actions, Power BI