BEN ALDRICH

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Eugene, OR & Oakland, CA

PROFESSIONAL SUMMARY

Environmental geoscience and spatial data science professional with hands-on experience in wildfire detection systems, remote sensing research, and geospatial software development. Skilled in translating research into operational tools for environmental monitoring and hazard assessment.

EXPERIENCE

GIS Developer (Contract)

Earth Surface Processes Lab (University of Oregon) & Landslide Hazards Research Lab (Oregon State University) | Nov 2025 – Present
Remote | For Oregon Department of Transportation (ODOT)

- Built ArcGIS Python toolboxes to implement geomorphological models developed by PhD candidates and professors at UO and OSU

- Created tools that converted research findings into functional GIS applications for landslide hazard assessment

- Worked on converting academic research into practical geospatial analysis software for ODOT use

Skills: Python, ArcGIS, GIS Development, Geospatial Analysis, Software Development

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OHAZ Student Field Technician

Oregon Hazards Lab | Full-time | May 2024 – Present (1 yr 9 mos)
Oregon, United States | On-site

- Fabricated, configured, and deployed sensor packages for the AlertWest wildfire detection system and ShakeAlert earthquake monitoring network

- Managed field deployment workflows to ensure reliable data acquisition for real-time hazard monitoring

- Troubleshot hardware and software integration issues to maintain sensor network performance in remote field environments

Skills: GIS and Remote Sensing, Wildfire Detection Systems, Sensor Deployment, Data Acquisition, Technical Troubleshooting

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Undergraduate Research Assistant

IGLOO at University of Oregon | Oct 2024 – Dec 2025 (1 yr 3 mos)

- Collaborated with graduate students on remote sensing research projects analyzing glacial retreat in Alaska and Greenland

- Compared theoretical models with field data to assess utility for further research applications

- Conducted time series terminus tracking to assess calving dynamics and glacier behavior patterns

Skills: Remote Sensing, Data Analysis, Glaciology, Research Methods

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Multisport Day Camp Instructor

Avid4 Adventure | Seasonal | May 2023 – Aug 2023 (4 mos)
Oakland, California, United States | On-site

- Led groups of 10-15 participants in outdoor activities including kayaking, rock climbing, and mountain biking

- Developed and delivered engaging programming while maintaining safety standards

- Collaborated with co-instructors to coordinate logistics and manage diverse skill levels

Skills: Outdoor Education, Outdoor Adventures, Leadership, Risk Management

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Trackers Earth

Tenure: 3 years 3 months

Teaching Coordinator

Jun 2022 – Aug 2022 (3 mos) | El Cerrito, California, United States | On-site

- Led a team of employees to provide high-quality outdoor programming and curriculum development

- Managed anchor and belay systems for rock climbing activities

- Coordinated scheduling and logistics for multiple concurrent educational programs

Skills: Outdoor Education, Team Leadership, Program Development

Lead Guide

Jul 2021 – Aug 2022 (1 yr 2 mos)

- Designed and led field-based learning experiences for diverse participant groups

- Managed risk assessment and safety protocols in wilderness environments

- Mentored junior guides and contributed to curriculum design

Assistant Guide

Jun 2020 – Jul 2021 (1 yr 2 mos) | Berkeley, California, United States

- Supported lead guides in delivering outdoor education programs

- Assisted with equipment maintenance and site preparation

- Gained foundational knowledge in wilderness instruction and participant management

Skills: Outdoor Education, Outdoor Adventures, Safety Management

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EDUCATION

Bachelor of Science in Spatial Data Science & Environmental Geoscience
University of Oregon | Graduating Spring 2026 | GPA: 3.7

TECHNICAL SKILLS

- **Programming:** Python, R

- **GIS & Geospatial:** ArcGIS, QGIS

- **Design & Visualization:** Adobe Illustrator

CERTIFICATIONS

- Wilderness First Responder (WFR)

- CPR/AED

AWARDS & HONORS

- Dean's List, All Applicable Terms

CORE COMPETENCIES

- **Geospatial & Remote Sensing:** GIS, Remote Sensing Analysis, Image Processing, Geospatial Software Development

- **Environmental Monitoring:** Wildfire Detection Systems, Sensor Networks, Data Acquisition, Hazard Assessment

- **Technical Development:** Python, R, ArcGIS Toolbox Development, GIS Automation

- **Leadership & Field Work:** Team Management, Field Deployment, Safety Protocols, Risk Assessment

- **Soft Skills:** Problem-Solving, Cross-functional Collaboration, Technical Communication

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LOCATION

Oregon, United States | Available for relocation