



Research Assistant (GIS)
Falmouth, Massachusetts Onsite, Hybrid or Remote
[Link to Apply](#)

Mission:

Woodwell Climate Research Center (Woodwell Climate) conducts science for solutions at the nexus of climate, people, and nature. We partner with leaders and communities for just meaningful impact to address the climate crisis.

Woodwell Climate is a rapidly growing, top-ranked, independent non-profit climate research institute whose mission is to advance science-based climate policies through scientific research and outreach. Our world-leading research and impact helps individuals, organizations, corporations, communities, and nations understand the realities of climate change, recognize the impact on our planet, and embrace the urgent action needed to safeguard the future of life on Earth.

Summary:

We are seeking a skilled Research Assistant to assist with two projects focused on Arctic wildfire mapping and wildfire-induced permafrost thaw data synthesis at the Woodwell Climate Research Center. This position provides an exciting opportunity to significantly advance satellite-based wildfire mapping in Alaska and contribute to assessments of post-fire permafrost thaw carbon emissions. The successful candidate will utilize high-resolution WorldView-3 imagery to enhance current mapping approaches, which typically rely on coarser-resolution Landsat and MODIS data. Leveraging advanced machine learning and deep learning techniques, the candidate will play a critical role in improving the accuracy and effectiveness of wildfire detection and monitoring. Additionally, the candidate will utilize remotely sensed and observational field data in Alaska to enhance understanding of permafrost thaw and thermokarst activity attributed to wildfires.

Responsibilities include but not limited to the following:

- Digitize wildfires with high resolution satellite imagery for use in model training.
- Help to develop, train, and validate machine learning and deep learning models using satellite imagery to accurately map and classify wildfire-affected areas.
- Conduct accuracy assessments and validation to evaluate model performance and data quality.
- Synthesize existing remotely sensed, spatial and observational data products on Yedoma permafrost landscapes in Alaska that will be used to refine a post-fire permafrost thaw carbon emissions model.
- Participate in possible field campaigns to fill observational data gaps related to post-fire thermokarst activity and resulting carbon emissions.
- Prepare visualizations, maps, and reports detailing methodologies, results, and implications for wildfire mapping and patterns of post-wildfire permafrost thaw.

- Collaborate closely with project lead and research partners to ensure alignment of methodologies and project objectives.
- Present research findings at internal meetings, external conferences, and contribute to manuscript preparation for peer-reviewed publications.
- Manage and organize large geospatial datasets, ensuring data integrity, documentation, and accessibility.
- Participate in regular project meetings and assist with reporting project progress to funding agencies.

Must have the following skills, abilities and knowledge:

- Demonstrated experience using remote sensing (MAXAR or Landsat preferred) or other Earth observation data, and advanced statistical techniques.
- Knowledge of Geographic Information Systems (GIS) such as ArcGIS or QGIS
- Knowledge of forest and disturbance dynamics.
- Advanced computational and programming skills, preferably with python or R.
- Experience with ecological field observations
- Excellent written and oral communication skills.
- Ability to work independently and in a highly collaborative environment.

Qualifications:

- MA/MS degree in Environmental Science, Geography, Ecology, Earth System Science, Forestry, or a related discipline OR BA/BS with plus 2+ years

Work Environment:

The functions of this role are conducted indoors in an office environment.

Hours of Work:

- This role is paid on a salary basis.
- Typically, full-time employees work 40 hours during a Monday through Friday workweek. However, this is a salaried position. Therefore, the individual is expected to work as required to complete the duties of the position. This may mean weekend hours and/or hours beyond 40 per week.

Application review will begin ongoing

Desired Start Date: December 2025

Fixed-term: 2 years with possibility of extension dependent upon performance and availability of funds

Classification and Compensation: This is a full-time, salaried, exempt position, the annual salary starting at \$56,600 plus dependent on qualifications/experience. Woodwell offers a generous benefits package and work life balance.

Location: Falmouth, Massachusetts, onsite, hybrid or remote.

Application Instructions: To apply, please send your cover letter addressing your experience and qualifications in relation to the responsibilities of this position and curriculum vitae as a **single PDF** to our career's portal.

Please visit [Woodwell's website](#) to learn more about Woodwell's work.

Located on a 10-acre campus near the village of Woods Hole, the Woodwell Climate Research Center (Woodwell) is a private, non-profit research center. Woodwell is a leading source of climate science that drives the urgent action needed to solve climate change. Woodwell has 100+ staff members and is excited to welcome new employees to this work.

Woodwell Climate is an equal opportunity employer. All qualified applicants will receive consideration for employment without regard to race, color, religion, sex, mental, or physical disability, age, sexual orientation, gender identity, national origin, familial status, veteran status, or genetic information. Woodwell is committed to providing access, equal opportunity, and reasonable accommodation for all individuals in employment practices, services, programs, and activities.