Job Announcement

**JOB TITLE:** GIS Services Specialist

**DATE:** September 2022, onward

**STATUS:** Full-Time, Hybrid

**RATE:** $50-75K annually, DOQ

**CONTACT:** email jobs@10000yearsinstitute.org

**Background**

10,000 Years Institute (10KYI) is a 501(c)(3) non-profit organization conducting applied research, watershed ecological services, and community education. 10KYI works toward community, ecological, and climate resilience in the Pacific Northwest. We evaluate the effects of human activities on the forests, rivers, wetlands, and estuaries that sustain our communities and ecosystems. We develop innovative science-based approaches to restore ecological integrity and promote sustainable practices in landscapes across the region.

**Job Description**

Spatio-temporal data is crucial to every activity we undertake within the organization. From detailed reporting associated with project performance, to complex tracking and forecasting invasive and native vegetation and habitat condition, these data guide and communicate our activities, strategies, challenges, and successes to partners and the public. Joining our team of resource managers and scientists to fulfill the requirements of a highly technical position specializing in Geographic Information Systems (GIS), your duties will challenge you to organize, collect, maintain, analyze, upgrade, and manipulate geographic data in an evolving GIS integral to the organization’s research, watershed monitoring, restoration, education, and management objectives.

The organization’s GIS houses data related to aquatic and terrestrial habitat characteristics, research and resource management project metrics, invasive species and native vegetation, staff surveys, prevention and control activities, and numerous other natural resource data types. Our projects also contribute to eDNA studies, Olympic Mud Minnow monitoring, researching the effects of glacial retreat and climate change on riverine disturbance regimes. Our GIS Services Specialist performs relational database management; web server management, assists with network administration activities, back-ups, system security, and conducts raster, vector, and tabular analysis and associated cartographic duties.
Essential Duties and Responsibilities

• Create maps, graphs, and queries using GIS software, techniques, and related equipment
• Gather, analyze, and integrate spatial data from various internal and external sources
• Cartographic design targeted to public agency, partner organization audiences, and citizens
• Administer and maintain web-based GIS software and hardware on site and cloud (ArcGIS Online) environments, providing scalable GIS services to staff, partners, and public users
• Compile geographic data from a variety of sources including censuses, field observation, satellite imagery, aerial photography, DEMs, and existing maps
• Analyze spatial relationships among varying types of data and imagery
• Edits and creates map layers, shapefiles and geodatabases including point, line, and area geometry; manipulates raster data including aerial photography, satellite imagery, LiDAR, DEM and DSM data
• Develops and runs imagery classification methods on aerial imagery to detect and quantify invasive plant species and other environmental features
• Operates computerized graphic data-entry systems to enter and verify map data using GPS, mobile, web, and PC software with an emphasis on quality assurance and accuracy
• Configuration and maintenance of iOS and Android mobile devices for use with the organization’s GIS
• Performs data conversions, regular data back-ups, and archiving
• Perform scripting of geospatial analysis and data management using Python or other scripting languages on modern computer systems
• Develop, enhance, and maintain quality control and quality assurance procedures for publication of spatial and tabular data
• Provide technical support to staff and develop training materials for the use of GIS applications
• Develop and maintain GIS planning and coordination platforms for use by regional partners
• Maintains an understanding of the latest and relevant GIS technology, products, services, and training
• Support senior staff with spatial data and cartographic products for grant applications and reports
• Assists with budgeting, needs assessment, as well as GIS application development.

Qualifications

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Education and Experience

Four-year degree in GIS, Geoinformatics, Remote Sensing, Cartography, or related fields and 3+ years direct experience in using Esri ArcGIS Desktop or Pro software, ArcGIS Online, precision GNSS data collection hardware and mobile GIS data collection software. Alternatively, a 2-year degree or certificate in a GIS-related field and 5+ years direct experience may also be considered. Familiarity with ArcGIS Enterprise is beneficial.
Earth Sciences
Possessing some academic or professional experience with GIS applications related to hydrology, geomorphology, geology, soil characteristics, forestry, and botany is preferred. Knowledge of geographic terminology for the location and distribution of terrestrial and aquatic features, including their physical locations, relationships, and characteristics.

Communication
Perhaps the most critical skill you can offer is your imaginative, thoughtful, and succinct ability to communicate the positive impact we make throughout the landscape.

- Ability to read, analyze and interpret technical data
- Ability to prepare materials, present and respond to staff, partnering organizations
- Ability to author reports and correspondence using appropriate terminology. Ability to convey GIS/spatial information and concepts to non-GIS/technical audiences
- Ability to act as geospatial liaison with other resource management organizations
- Forge and maintain positive working relationships with collaborating staff at numerous county, state, and federal agencies, tribes, as well as non-profit and private partners

Do not hold back! We welcome your ideas with enthusiasm.

Mathematics
Possesses the experience and ability to calculate figures and amounts such as proportions, percentages, area, circumference, and volume. Ability to apply concepts of algebra, geometry, statistics, biometrics, and trigonometry. The ability to solve mathematic problems using GIS software.

Information Gathering
Knowing how to find, obtain and aggregate spatial information, identify essential datasets, and confirm the validity of these data and associated metadata. Makes inquiries about data sources, finds, and explores new data repositories.

Reasoning
Ability to define problems, collect data, assess validity, and draw conclusions. Ability to interpret a variety of technical instructions in mathematical or diagram form and apply abstract and concrete variables.

Certificates, Licenses, Registrations
GISP certification is appreciated but not required.

Must have a valid Washington State driver’s license and be insurable. May be required to safely operate organization and/or personal vehicles to perform job duties. A driving history/background check may be conducted on prospective candidates.
Other Skills and Abilities

Technical Skills

- A full understanding of a GIS, database design, spatial data management and digital mapping processes
- Must be able to read and understand maps, orienteering, and general survey concepts
- Knowledge of current versions of ESRI software, online tools, and ‘cloud-based’ techniques including various ArcGIS products, mobile apps, Spatial/3D Analyst, and related components
- Knowledge of data collection using the latest GPS hardware and software; data correction and control
- Cartographic knowledge and design skills to communicate complex spatial concepts through the production of compelling maps and graphic styles
- Experience with time-based spatial animation to communicate change and present research findings
- Familiar with imaging software, satellite imagery, ortho-photography, and raster manipulation, including developing and running unsupervised and supervised classification models on aerial imagery
- Familiar with plotters, and GIS/DBMS back-up systems
- Knowledge of and experience with various PC platforms, emulation software, MS Office Suite, including MS Access and database structures
- Familiar with principles, practices, hardware, and software related to the establishment and maintenance of inter/intra networks including LANs and their data integrity and security
- Ability to apply geometric and algebraic concepts, compute complex area calculations.

General Skills

- Excellent analytical and problem-solving skills
- Well-organized
- Strong project and time-management skills
- An understanding of land management, land use impacts, natural resource management, tribal sovereignty, state, and federal resource management agencies
- Ability to perform fieldwork and ground-truthing
- Familiarity with information privacy laws and best-practices

Work Environment

Our work takes place in some of the most pristine wilderness in the lower 48. The plethora of biodiverse environments we work to protect and enhance here are a national treasure and are the foundation of 10,000 Years Institute’s work on the Olympic Peninsula.

Our on-site duty station is our Forks, WA office. Forks is a remote, rural community in western Washington that can receive 20 inches of rain per month during the winter, and 120 –140 inches per year.

This position is a hybrid position with on-site Forks office days and remote work-from-home days as desired and appropriate to tasks at hand. This is a full-time position with flexible scheduling offered for time off.
Benefits
We provide the following benefits:

- Employment Security, Social Security, and Workman’s Compensation coverage
- One hour paid time off (PTO) per 40 hours worked -- for vacation and illness
- PTO for COVID vaccination and boosters
- PTO for family leave (up to two weeks per year)

How to Apply
Please email a cover letter, resume, an exemplary cartographic project you are proud of, and three references to jobs@10000yearsinstitute.org

Applications will be accepted until EOD September 15th (or until the position is filled).

*No phone calls, please.

We conform to all the laws, statutes, and regulations concerning equal employment opportunities and affirmative action. We strongly encourage women, minorities, individuals with disabilities and veterans to apply to all of our job openings. We are an equal opportunity employer and all qualified applicants will receive consideration for employment without regard to race, color, religion, gender, sexual orientation, gender identity, or national origin, age, or disability status.