Job Description:
Real-time Monitoring (GIS & Remote Sensing) Specialist
March 2022

Organization

Amazon Conservation's mission is to unite science, innovation and community to protect the western Amazon—the greatest wild forest on Earth.

As conservation pioneers since 1999, we have used science to guide our multi-pronged approach to environmental conservation and restoration in the western Amazon. Our on-the-ground efforts are geographically focused in the headwaters of the Amazon basin, where the Amazon forest meets the Andes mountain range in southeastern Peru and northern Bolivia.

In 2015, we launched our satellite-based, real-time monitoring initiative known as MAAP (Monitoring of the Amazon Project), allowing us to expand our focus across the entire Amazon. MAAP specializes in real-time deforestation and fire monitoring and has emerged as a regional and global leader in the field of technology-based conservation. MAAP maintains an intense focus in our core areas of Peru and Bolivia, but now also includes regular monitoring of Brazil, Colombia, Ecuador, and Venezuela.

MAAP monitoring work yields both high-impact public reports to an international audience, as well as confidential reports to select government agencies. Reports cover critical topics such as illegal gold mining, illegal logging, expansion of the agricultural frontier, new roads, and fires. To date, we have published more than 150 public MAAP which are often subsequently covered by both international and national media. We have also submitted over 150 private reports directly to governments and indigenous communities, leading to important and timely field interventions.

For more information, please visit www.amazonconservation.org.

Position Overview

Amazon Conservation seeks an advanced GIS & Remote Sensing Specialist to support our MAAP satellite-based real-time monitoring program.

This position will ideally be based in our Washington, DC office but we are open to remote working possibilities (both national and international).

The position will work under the supervision of the Senior Research Specialist and in close collaboration with the other GIS & Remote Sensing Specialist, and will coordinate with colleagues in Peru, Bolivia and other organizations throughout the Amazon as part of our Alliance-wide MAAP team.

The GIS & Remote Sensing Specialist will focus on systematic and real-time deforestation and fire monitoring across the Amazon, in support of MAAP (Monitoring of the Amazon Program). Specifically, they will:

1. Support deforestation monitoring based on the MAAP published methodology to analyze automated forest loss alerts, such as those produced or presented by the University of Maryland (GLAD and GLAD plus alerts), Global Forest Watch (radar-based alerts), and the Peruvian government, respectively.

2. Help the Alliance MAAP team reach and maintain 100% real-time monitoring coverage of the Amazon biome and carry out analysis of daily and monthly high-resolution imagery (from the satellite company Planet) for select areas already known to be a deforestation threat.

3. Support fire monitoring that is based on aerosol emissions generated by the Sentinel-5 satellite and displayed on our unique fire monitoring app, and analyze areas with elevated emissions with daily high-resolution imagery from Planet.

4. Enter key findings from both types of monitoring into our custom data dashboards, to prepare them for use in our public MAAP reports or confidential policy briefs that contribute to the Alliance's Governance Program that supports government agencies to stop forest crimes.

Responsibilities

Real-time Monitoring (80%)
- Real-time deforestation and fire monitoring based on analysis of automated alerts and subsequent manual analysis of high resolution imagery (see details above).
- Assist in related data analysis and preparation of materials (maps, graphics) for public MAAP reports and confidential government reports.
- Help develop and improve protocols for data analysis, processing, visualization, publication, and storage.

Special projects (10%)
- GIS and remote sensing support related to special projects focused on analyzing the most critical big-picture issues of the day, such as climate change and deforestation patterns.

Other General GIS-related Tasks (10%)
- Support ACA in general organizational needs, such as maps and analyses related to grant proposals.

Required Qualifications
- Bachelor's degree and 3-5 years of experience and proven record of remote sensing experience
- Applicants should have previous remote sensing experience with demonstrated advanced skills analyzing satellite imagery. Ideally, this experience is related to tropical forest monitoring. While GIS experience is useful, we prefer candidates who have more established remote sensing skills beyond GIS experience alone.
- Advanced knowledge in remote sensors and Geographic Information Systems (ArcGIS Desktop, QGIS).
- Knowledge in analysis and processing of satellite imagery (especially Planet and Sentinel).
- Experience with creating graphics and mapmaking.
- Strong interest in conservation, and ideally, tropical forest conservation.
- Ability to perform well in fast-paced, cross-cultural team environment

- Strong organizational skills and attention to detail
- Proficiency in written and spoken Spanish

Given the extensive training involved, a minimum two year commitment is expected.

Salary commensurate with experience.

Amazon Conservation offers a competitive benefits package that includes employer-paid medical, dental, vision, short- and long-term disability, as well as a matching pension plan, and 25 vacation days. EOE

In addition to salary and benefits, the Specialist's work contributions will be recognized via co-authorship of regular reports published on our MAAP portal.

Please note that due to the current COVID-19 pandemic, Amazon Conservation staff are working remotely. This position will start as a remote position, but the candidate must still be located or willing to relocate to the DMV area (Washington, DC - Maryland - Virginia) with access to our DC office. When pandemic restrictions are over, the organization will resume its in-person operations.

Application Guidelines

Email your resume, cover letter, and list of three references to applications@amazonconservation.org with the subject line "Real-time Monitoring Specialist Application." Applications without all required materials will not be reviewed. Due to the high volume of applications, the organization will only reply to finalist candidates. No phone calls, please. EOE.

Candidates are reviewed on a rolling basis. Position open until filled and is available immediately.