



JOB DESCRIPTION – December 2022

Job Title: Full Stack Developer (forest communities monitoring system)

Location: London/Hybrid

Salary: £37,685

Reporting to: Senior GIS and Database Coordinator

Duration of Contract: 2 years (with possibility of extension)

Rainforest Foundation UK

Founded in 1989, the mission of the Rainforest Foundation UK (RFUK) is to support indigenous peoples and traditional populations of the world's rainforest to:

- Secure and control the natural resources necessary for their long-term wellbeing and managing these resources in ways that do not harm their environment, violate their culture or compromise their future.
- Develop means to protect their individual and collective rights and to obtain, shape and control basic services from the state.

Our approach differs from that of other organisations in that we are committed to both human rights and environmental protection. We firmly believe that the best way to protect the rainforest is through empowering indigenous peoples and local communities to defend their ancestral lands. We promote the establishment of community rights to rainforests, tackling the root problems causing deforestation, and paving the way for local people to benefit fairly from the use and protection of forest resources.

RFUK is recognised as a leading force in the protection of tropical forests and their inhabitants, particularly in the Congo Basin region of Africa. As well as delivering high quality on-the-ground practical projects, often in difficult conditions, the organisation is known for its strong policy and advocacy work in promoting forest peoples' rights.

Together, with our sister organisations Rainforest Foundation US and Rainforest Foundation Norway and our global network of indigenous organisations and other frontline defenders, we have supported the protection of more than 84 million hectares of tropical rainforest - an area roughly the size of Scandinavia.

Community-based Real-time Monitoring

Community-based forest monitoring is one of RFUK's leading programmes and aims to unlock the potential of forest guardians to protect their forests, connecting them with law enforcement agencies to improve detection and enforcement of illegal logging on their lands. At the heart of this is [ForestLink](#), a breakthrough system that enables communities to transmit highly accurate and low-cost alerts of illegal forest activities in real-time, even from remote areas with no connectivity.

The system, launched in 2014, has been deployed in eight countries (DR Congo, Republic of Congo, Cameroon, Ghana, Liberia, Ivory Coast, Kenya and Peru) where hundreds of community monitors have [generated thousands of illegal deforestation alerts](#) to enhance detection and enforcement of illegal forest destruction. This has led to reduced illegal logging and mining in the target areas, seizures of illegal timber and equipment, landmark court cases, a better deal for communities from timber companies and enhanced territorial protection.

The ForestLink system comprises four main elements:

- Collectaur – a native android mobile application that allows communities to collect geo-referenced information on illegalities and send them to a central database in real time;
- Monitaur – the online platform where community generated data is stored and analysed; the platform has been developed using NodeJS and is connected to CouchDB – a NoSQL database – and is hosted on AWS;
- Verificator – a native android mobile application that is used to verify collected information;
- Community hub – the system that allows communities to transmit alerts via satellite.

Responsibilities

The role sits within Programmes, the main team responsible for the implementation of our projects in tropical forest regions. The full-stack developer will play a central role implementing the strategy for the next phase of growth and development of the system, leading on the technical developments foreseen for ForestLink, maintaining the system and supporting local partners so they can use the tool, as well as constantly improving the system based on their feedback.

The post-holder will work under the supervision of the Senior GIS and Database Coordinator who will lead on data structure and management and making data available in a way that can support campaigning, advocacy and media engagement. They will also work in close collaboration with the Senior RTM Project Coordinator who is in charge of project implementation and the strategic direction of the work. The role will include the following tasks:

Maintaining and Developing the Monitoring System

- Lead the development of a new ForestLink platform, in close coordination with the RTM Project Coordinator and the GIS and Database Coordinator;
- Maintain and constantly improve all aspects of the ForestLink system (Collectaur, Monitaur, Verificator, Community Hub), including new features such as a two-way communication system and improving offline capabilities, including by responding to ad hoc requests from partners and reports of glitches;
- Provide technical support and training to partners regarding the administration of the system;
- Oversee the data contained in all country platforms; analysing usage trends; identifying potential mistakes in data entry and ensuring the database fulfils partners' needs.
- Manage all ForestLink recurring costs and subscriptions and coordinate with relevant members of the Programmes Team to ensure these are paid from appropriate budgets; maintaining a centralised control of all expenditure;
- Develop a new text messaging functionality for the monitoring system to further breakdown access barriers, following a pre-established development plan.
- Setup adequate security measures to protect the RTM system and ensure software is kept up-to-date and develop new protocols if required;

- Improve overall user experience of the system by taking into account user's feedback in the (re)design or (re)development of existing or new functionalities;
- Under the leadership of the GIS and Database Coordinator, contribute to the development of the [ForestLink Alerts Map](#), particularly by ensuring that the monitoring system feeds information into the database in appropriate formats and supporting the compilation of data and analytics to support campaign and advocacy;
- Documenting all technical developments and support in the development of training documents, user manuals and similar outputs;
- Providing support and training to RFUK staff and local partners responsible for deploying the system in different countries.

General

- Remain abreast of most recent technological developments relevant to the Monitoring work and participating in conferences and forums as appropriate;
- Maintain good understanding of the general social, political and environmental landscape in our focus countries;
- Contributing to the development of reports, briefings, leaflets and other media to inform RFUK target groups;
- Ensure good coordination with other members of the Programmes Team and ensure regular communication and information sharing in this respect;
- Contribute to the development and implementation of the Organisational strategy;
- Where relevant, represent the organisation in relevant local, national and international fora, on relevant policy issues;
- Where possible, contribute to RFUK's [MappingForRights](#) community mapping and land use planning work, under the leadership of the GIS and Database Coordinator;
- Perform other tasks as may from time to time be requested by the Head of Programmes and Executive Director.

PERSON SPECIFICATION

This role would suit a candidate with a strong software development skills and a personal commitment to social and environmental justice.

The ideal candidate be a self-starter who is able to operate effectively across different environments/teams and with a range of different stakeholders from the project team in London to remote forest communities, to international institutions.

Knowledge and Experience

| Essential | Desirable |
|---|--|
| <ul style="list-style-type: none"> • Degree in Computer Science or equivalent • Knowledge of cloud platforms (AWS ideally) • Experience with NoSQL database • Strong experience with Core Java • Experience in native Android app development with Android studio • Working knowledge of NodeJS • Experience in web development with ReactJS • Some understanding of Python • English language skill at level C1 on the Common European Framework and fluency in French, written and spoken. • Awareness of the main issues affecting global rainforests and Indigenous Peoples' and local communities' rights. | <ul style="list-style-type: none"> • Working knowledge of git • Knowledge of Bitbucket • Understanding of CI/CD • Understanding of GIS • Experience with budget management • Experience of working with local partners in developing countries and developing civil society capacity. • Knowledge of Spanish. • Experience of independent forest monitoring initiatives, particularly in Africa or Peru. • Experience of projects related to forests, land tenure and indigenous peoples' rights, or other experiences in the "tech for good" sector. |

Personal Skills and Attributes

| Essential | Desirable |
|---|------------------|
| <ul style="list-style-type: none"> • Good communication and training skills, particularly to transfer knowledge and build capacity of people of different backgrounds. • Cultural sensitivity and demonstrable commitment to RFUK's values and to the principles of inclusion and non-discrimination. • Desire and capacity to work on complex issues in a complex environment. • Careful and conscientious with demonstrable attention to detail. • Excellent organisational and time | |

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|---|--|
| <p>management skills with the ability to work under pressure and to multiple deadlines.</p> <ul style="list-style-type: none"> • Commitment to RFUK's values | |
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SUMMARY, TERMS AND CONDITIONS

Hours, remuneration and place of work

The salary is £37,685 gross per annum with workplace pension after two months in the role (4% employer contribution).

The post is offered on a fixed term 2-year contract, and with a six-month probationary period.

This position is for a full-time role based on a 35-hour working week. Much of the work can be carried out at home, working remotely. However, there is an expectation of at least two office days a week for all staff at The Rainforest Foundation UK. Alternative arrangements may be considered for exceptional candidates.

Monthly salary is paid by Bank Automated Credit transfer, on the 25th of every month. Holidays, sick pay and other benefits are provided in accordance with statutory requirements. 30 days paid leave per year are offered.

The place of work is RFUK's London office located in Units 2-4 The Atelier, The Old Dairy Court, 17 Crouch Hill, London N4 4AP, United Kingdom.

There is no parking provided for the post-holder, although bicycles can be stored at location provided.

Equal Opportunities

RFUK is an equal opportunities employer, and makes no discrimination on the grounds of gender, race, age, physical abilities, religious or sexual persuasion.

Visa Sponsorship

RFUK holds an active sponsors license and a Visa maybe offered if required by the selected candidate.