Join CIFOR-ICRAF and make a difference!

International Scientist - Spatial Data Science (Ref. No.2024009)

CIFOR-ICRAF brings more than 75 years of experience in harnessing the power of trees, forests, and agroforestry landscapes to address the most pressing global challenges of our time – biodiversity loss, climate change, food security, livelihoods, and inequity. It has partnerships in 64 countries, 159 funding partners and 192 active projects, alongside more than 2,200 completed projects across 92 nations. The organisation has an annual budget of USD 100 million, and a combined legacy investment of USD 2 billion in research and technology, policy, and development. On average, CIFOR-ICRAF research is cited nearly 137 times a day and appears in global media more than 3,000 times per year.

CIFOR and ICRAF merged in 2019 and are both international organizations and CGIAR Research Centres. Learn more at cifor-icraf.org.

CIFOR-ICRAF is looking for a:

International Scientist- Spatial Data Science

Overview

We are looking for a Spatial Data Scientist with strong machine learning analytics experience. The position falls under the Spatial Data Science and Applied Learning Lab (SPACIAL) of CIFOR-ICRAF. If you have a background in GIS, spatial data analysis, including remote sensing (satellite data analysis, drone data processing), this position might be for you. You will need a strong background in working on the development and deployment of machine learning models based on remote sensing data (e.g. satellite data). Spatial data science tasks will include data analysis using R Statistics, Python, Julia, and QGIS. A background in the maintenance and use of SpatioTemporal Asset Catalogs (STACs) would be a bonus. Tasks will include identification of data analytics problems, cleaning, and validation of data to ensure accuracy, completeness, and uniformity, and machine learning tasks. The position will support multiple themes and units within CIFOR-ICRAF on scientific project tasks, particularly around access to and use of spatial data, database development and management, report writing, and scientific publications. The position will also supervise junior data scientists, interns, and students.

Summary of responsibilities

1. Develop and deploy machine learning models using ground truth and remote sensing data to assess various aspects of ecosystem health at scale based on global datasets. This will include working with both optical and radar data and advanced machine learning frameworks, including deep learning models.
2. Conduct spatial data (GIS) analysis tasks using R, Python, Julia, and QGIS.
3. Contribute to the maintenance of the SPACIAL STAC.
4. Contribute to the development of monitoring systems and platforms.
5. Develop and deploy machine learning models using ground truth and remote sensing data. This will include working with both optical and radar data.
6. Engage with stakeholders and contribute to the development of trainings for CIFOR-ICRAF staff and outside partners in spatial data analysis using languages such as R, Python and Julia.
7. Represent CIFOR-ICRAF at conferences and/or meetings from a technical remote sensing / data science perspective.
8. Manage spatial data science fellows and interns.

Requirements
- MSc or PhD in spatial data science, remote sensing, GIS or related field.
- Strong background in machine learning and AI.
- High level of proficiency in computer programming languages such as R, Python, or Julia.
- Experience in handling spatial data.
- Experience with Natural Language Processing (NLP).
- Experience with interactive decision support systems (eg. dashboards).

Personal attributes and competencies:
- Strong English writing and presenting skills.
- Good interpersonal skills.

Terms and conditions
- This is a Globally Recruited position. CIFOR-ICRAF offers competitive remuneration in local currency commensurate with skills and experience.
- The duty station will be in Nairobi, Kenya CIFOR-ICRAF Offices.

Application process
Go to http://worldagroforestry.org/working-for-icraf/vacancies
- A cover letter illustrating your suitability for the position against the listed requirements and salary expectations,
- A detailed and updated curriculum vitae,
- The names and addresses of three referees, including telephone and email addresses.
- The application deadline is 18 March 2024.
- We will acknowledge all applications but will only contact short-listed candidates.

CIFOR-ICRAF is an equal opportunity employer. Staff diversity contributes to excellence.