



Postdoctoral Fellow, CIALCA Data Scientist (Ref: DDG-R4D/PDF/DS/10/17)

Background: The International Institute of Tropical Agriculture (IITA) invites applications for the internationally recruited position of **Postdoctoral Fellow, Data Scientist** to operate under the Consortium for Improving Agriculture-based Livelihoods in Central Africa (CIALCA - www.cialca.org). The Data Scientist is supposed to support Research for Development activities across the CIALCA region, which includes Burundi, Rwanda and eastern DR Congo.

The International Institute of Tropical Agriculture (IITA) is a not-for-profit institution that generates agricultural innovations to meet Africa's most pressing challenges of hunger, malnutrition, poverty, and natural resource degradation. Working with various partners across sub-Saharan Africa, we improve livelihoods, enhance food and nutrition security, increase employment, and preserve natural resource integrity. IITA is a member of CGIAR, a global agriculture research partnership for a food secure future. Please visit <http://www.iita.org/> for more information on IITA.

Position Responsibilities

The Postdoctoral Fellow will undertake the following activities:

- Assemble existing experimental and household agronomic, socio-economic and health data in a searchable, web-based repository.
- Improve and maintain relational databases for storing experimental and survey-based agronomic, socio-economic and/or health data.
- Develop, improve and maintain scripts to transfer data collected through mobile app- and web-based tools to databases.
- Develop and implement procedures for data verification and curation.
- Liaise with software developers and/or SharePoint managers to implement procedures to avail data to/collect data from end-users.
- Collaborate with scientists and mobile app developers to improve data collection tools (ODK) and others.
- Conduct statistical analyses of experimental and survey-based agronomic, socio-economic and/or health data.
- Collaborate with GIS specialists and geospatial information analysts to develop prediction models.
- Interact with crop modelling specialists to integrate crop models into predictions.
- Implement procedures for validation of prediction models and determine prediction error.
- Liaise with software and app developers to integrate prediction models into decision support tools.

Educational Qualifications

The candidate should have a completed PhD in data science, geospatial information systems, statistics or related, preferably applied in the field of agronomy, nutrition and/or soil science.

Core Competencies

- Thorough knowledge and demonstrated expertise in developing and managing relational databases. Knowledge of MySQL is a plus.
- Expert knowledge in applied statistics, including geospatial data analysis and experimental design.
- Strong programming skills in R.
- Applied knowledge, and experience in food and agricultural sciences.
- Proven capacity in contributing to the documentation of scientific research.
- Strong analytical skills.
- Excellent communication skills, able to interact with a multi-cultural and interdisciplinary team of scientists and development partners on IT and statistics in layman language.
- Proactive and independent problem solver, and excellent team player.

Duty station: Bujumbura, Burundi.

General information: The contract will be for an initial period of two years. IITA offers an internationally competitive remuneration package paid in US Dollars.

Applications: Applications must include covering letter which should address how the candidate's background/experience relates to the specific duties of the position applied for, curriculum vitae, names and addresses of three professional referees (which **must** include either the Head of the applicant's current or previous organization or applicant's direct Supervisor/Superior at his/her present or former place of work). The application should be addressed to the Head of Human Resources. Please complete our online application form using this link: <http://www.iita.org/careers>

Closing Date: 9th November 2017

IITA is an equal opportunity employer and particularly welcomes applications from women candidates.

Please note that only shortlisted candidates will be contacted.