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ihi IFAKARA HEALTH INSTITUTE
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VACANCY ANNOUNCEMENT

Job Summary
Position: **Research Scientist-Data Analyst/Programmer (1 Post)**
Reports To: **Team Lead/Technical Lead – MAP EA**
Work Station: **Dar es Salaam**
Apply By: **15th November 2023**

Institute Overview
Ifakara Health Institute (IHI) is a leading research organization in Africa with a strong track record in developing, testing and validating innovations for health. Driven by a core strategic mandate for research, training and services, the Institute's work now spans a wide spectrum, covering biomedical and ecological sciences, intervention studies, health-systems research and policy translation.

Position Summary
Ifakara Health Institute is seeking a **Data Analyst** to join the East Africa (EA) Node of the Malaria Atlas Project (MAP) team. The Data Analyst will support the team in designing, building and running the software and systems from frontend to backend, that underpin the project's large-scale solutions to support advances in the study of malaria and associated topics. The role requires both, the business thinking approach and technical expertise around several steps on the development of the analytical tools and architectures for the processing of large amounts of (spatial, non-spatial) data i.e., design, build, deploy, and maintain. The Analyst is expected to collaborate with a team of postdocs/modellers to build high quality software and systems that provides a mature user experience, ensuring smooth delivery and update of production service with no user impact and create world class, robust APIs to enable internal and external users to access the project's data.

Duties and Responsibilities
Business analysis
- Proactively work with researchers across the team through all stages of design and testing to ensure that developments meet user requirements.
- Communicate directly with external stakeholders to present options for technical solutions using prototypes, walkthroughs and software demonstrations where appropriate.

Technical development
- Design, build, test and document developments, working from functional specifications or detailed change requests.
- Provide support and maintenance for production systems.
- Proactively support production of scientific models that are scalable, robust and high-performing.
- Maintain an understanding of data models and technical designs of applications being developed.
- Make performance improvements to models so that we can reach improved levels of scale.
- Identifying and implementing generalizations and abstractions of existing and new data models.

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Data lifecycle

- Develop and maintain pipelines to extract, synthesize and integrate data from various sources, making it available to computational scientific models and user interfaces
- Develop and maintain tools to facilitate the extraction of needed metrics for malaria modelling from academic papers and other reports
- Lead the development of web interactive dashboards to examine, manipulate, process data and, to disseminate the results of MAP modelling efforts
- Support the process of selection, and implementation of data extraction and manipulation protocols.
- Maintain an understanding of data models and technical designs of applications being developed

Workplace safety

- Take reasonable care for your own safety and health and avoid harming the safety and health of others through any act or omission at work.
- Identify and assess workplace hazards and apply hazard controls.
- Report every workplace injury, illness or near miss, no matter how insignificant they seem.
- Abide by institutional policies and procedures.

Qualification and Experience
Essential skills and competences

- Master's degree in computer science, software development or related subject area with at least 1 year of experience in data science. Desirable: PhD degree level in computer/data science, software development or related subject area.
- Experience programming in Java and/or Python/R.
- Solid expertise and working knowledge with large datasets and relational databases (SQL)
- Knowledge of web front-end technologies: HTML, CSS and JavaScript.
- Excellent written and oral communication skills (in English language) including ability to present complex information in a concise and clear manner to people from different backgrounds.
- Solid understanding of relational and non-relational database design principles.
- Strong understanding of web services or clients consuming web services.
- Ability to pick up new software, frameworks and APIs quickly.

Desirable

- Understanding of malaria epidemiology and public health surveillance in malaria endemic countries.
- Experience working collaboratively on code/scripts with version control using e.g. Git.
- Experience developing interactive dashboards and handling big data.
- Knowledge and experience developing R packages and workflow pipelines.
- An understanding of distributed data processing methodologies and frameworks. Experience with clustering and containerization technologies (e.g., Kubernetes, Docker etc).
- Experience with at least one public cloud environment (e.g., Google Cloud Platform, AWS, etc.)
- Knowledge of other languages including Swahili, French, Spanish, Portuguese.

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Remuneration

An attractive and competitive remuneration package will be offered to successful candidates as per IHI salary scales.

Equal Opportunity

IHI is an equal opportunity employer. We prohibit intentional biases or discrimination and harassment of any kind at the workplace and during recruitment. All employment decisions are based solely on job requirements and individual qualifications, and our recruitment process is governed by the labour laws of Tanzania.

Mode of Application

All candidates who meet the above job requirements should send their application letters together with their detailed curriculum vitae (CVs) showing contact addresses including email, telephone/cell phone numbers and copies of academic and professional certificates to the email address below.

The **deadline** for this application is **17:00 hrs on Wednesday, November 15th 2023.** All email application subject lines should include: **RESEARCH SCIENTIST- Data Analyst – Map EA Node DAR. Only shortlisted applicants will be contacted for an interview.**

Human Resources Manager
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