



DHIS2 Software Engineer (2 Positions)

Reports to: Matrix Reporting to Malawi Technology Lead & MoH ICHIS Coordinator
Location: Lilongwe, Malawi
Start Date: January/February 2023

Who we are

D-tree International is a global digital health organization dedicated to ensuring that everyone has access to high-quality primary healthcare in underserved areas. We do this by working with governments to design, build and deploy digital tools for frontline health workers that improve their ability to deliver high-quality, evidence-based care. D-tree **engages** with governments to develop a shared vision for the potential of digital health, **demonstrates** the effectiveness of digital systems to improve health outcomes, and **accompanies** governments to scale these digital systems nationally and institutionalize them within their broader health systems.

We are currently a technology partner for a Consortium which is being led by Amref Health Africa under a USAID funded Momentum (Tikweze Umoyo Activity). Our role is to support the development, implementation and support of digital innovations that will help support service provision at different levels of implementation of the program by the consortium partners, with an overall objective of improving the health status of Malawians.

Who you are

We are seeking a full time DHIS2 Software Engineer to work closely with MoH and other partners in supporting the development, implementation, maintenance and disposition of integrated Community Health Information System (iCHIS). This is a dynamic and challenging role requiring an individual with strong organization and communication skills as well as a solid background in professional Software Engineering.

You are someone who is always curious and an independent worker. You are just as comfortable learning new software platforms as you are working in a multidisciplinary team or meeting health workers in a village to understand the user experience. You have a passion for using technology to improve health systems. You are someone who can also clearly communicate about complex technical topics to non-technical audiences. You have worked as a software developer in multi-disciplinary teams, developing, deploying and maintaining mobile applications built on the DHIS2 platform.

What you will do

Your main role to work on behalf of D-tree in collaborating with a diverse technical team from MoH, AMREF and other digital health partners to design, build, deploy and maintain web and mobile applications and dashboards, with a focus on systems developed on the DHIS2 platform. Working under the supervision of Technology Lead, you will understand and define what it takes to build the digital health systems to improve people's well-being and reach our program goals. You will work with platform providers, external software developers and our team to build, configure or extend digital health tools. Once applications are deployed, you will manage troubleshooting and user support and participate in continuous evaluation and improvement.

Specific responsibilities include:

- Collaborate with Ministry of Health Digital health teams and other external organizations and/or consultants to co-design an iCHIS platform that responds to user needs and community health data needs
- Development of health application components for DHIS2 platform.
- Quality assurance of the mobile applications and server processes
- Setup and maintenance of servers and databases for back-end and data
- Operational maintenance and updates of the health systems environments
- Maintain communication with program team to execute the technical/operational needs of the programs
- System documentation and support training delivery
- Establish and maintain partnerships with relevant stakeholders.
- Work with technical leads and program staff to translate user requirements into detailed product specifications.
- Model patient flows and processes
- Use detailed specifications requirements to configure iCHIS modules, covering specified service delivery workflows, data collection, management, visualization and analyses, and dissemination
- Identify and implement interoperability requirements
- Develop custom apps, as may be required, using the DHIS2 web API.
- Test software products in the production environment before going live
- Conduct user acceptance testing (UAT)
- Support iCHIS Deployment activities, development of user manuals/guides and/or required SoPs supporting the use of new Modules designed and configured in iCHIS by the Users.
- Design and identify ways to enhance and improve the Dashboards and/or Data Visualization design and Data Sharing practices to improve data use (working with Data Analytics Unit from DHD and CMED).
- Support DHD and DHIS2 Core Team in version control and updating of the iCHIS DHIS2 mobile and desktop platforms while catching up with technological dynamics and changes
- Participate in product reviews efforts for deployed iCHIS modules
- Maintain iCHIS modules once they are up and running
- Facilitate stakeholder capacity development efforts

Qualifications

The following attributes are a general overview, but we will consider individuals who do not meet all of the details below if you have the right skills and attitude.

- Bachelor's degree or higher in Computer Science or related field.
 - Minimum of 2 years of experience working with DHIS2 to configure transactional and aggregate solutions, including development of custom applications using the DHIS2 Web API
 - Expert knowledge of DHIS2 Tracker (solution design, program rule configuration, program indicator configurations, resource access management)
 - Expert knowledge of React, JavaScript, web technologies (HTML/CSS), PostgreSQL
 - Experience working with REST Web APIs and JSON
 - Knowledge of principles of software design, coding, testing, and deployment
 - Knowledge of principles of database design, data acquisition and data access analysis and design
 - Knowledge of stored procedure writing, query optimization, and indexes
 - Experience working with agile development methodologies
 - Experience developing software documentation
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- Ability to work in a high-pressure and agile environment with changing requirements and priorities while completing tasks in a timely manner.

- Ability to take direction to iteratively define and implement solutions as requirements are being identified and finalized.
- Ability to work independently and within a team environment, often with team members being remote
- Strong communication skills and an eye for detail
- An understanding of public health sector and corresponding business processes

Salary Range:

19,344,000 MWK to 26,288,000 MWK gross annual salary inclusive of all cash compensation.

Note: Starting salaries typically fall in the lower half of the salary range; however, they are ultimately determined by the scope of the position, the candidate's relevant experience, and internal equity.

Application information

To apply for this role please fill in the [google form](#) here. Only applicants who respond to all questions and include their CV as well as a thoughtful, tailored cover letter will be considered.

Please note: this position is open to Malawi nationals only.