Consultant Opportunity: Botswana Healthcare Software Developer

The Digital Initiatives Group at I-TECH (DIGI) at the University of Washington in Seattle, WA is seeking a full-time consultant located in Gaborone, Botswana to fulfill software development needs, for an anticipated period of six months (through September 2024).

DIGI develops and implements several open-source software packages, including OpenMRS, OpenELIS Global, and interoperability platforms based on the OpenHIE framework. Together, our work supports standards-based, interoperable health IT architectures, which can be managed in a sustainable manner by Ministries of Health and their in-country technical assistance partners.

Scope of Work
The Healthcare Software Developer is responsible for technical development of clinical and public health information system tools and standards-based health information exchange architectures for the health sector in resource-limited settings. This position will be essential in leading the software engineering, quality assurance, and deployment support for these products. The position also supports the in-country counterparts in managing deployment, upgrade, and maintenance of software and technical products.

Specific Activities
- Develop and review detailed technical specifications and design documents for health information exchange software development.
- Conduct work breakdown planning for development and provide accurate and timely estimates for completing programming of features, bug fixes, and requests for scheduling into the software development lifecycle (SDLC), preferably as an agile development methodology.
- Evaluate, select, configure, augment, and integrate software to support data collection, storage, integration, and use (e.g., OpenMRS / BotswanaEMR, OpenHIM, OpenCR, GoFR, DHIS2, HAPI FHIR, Botswana PIMS, Botswana IPMS, etc.)
- Design and develop health information exchange architectures using open source tooling and international health informatics standards and best practices (OpenHIE, OpenHIM, IHE, HL7, FHIR, LOINC, ICD, etc.)
- Develop, test, and deploy software, tools, and projects, in line with documented requirements, specifications, and designs.
- Collaborate with business analysts and practices in the software development lifecycle and technology project management, including the use of project management tools and software (e.g. Jira, Github Issues, etc.)
- Assure high quality of software products through rigorous testing at multiple levels (e.g. unit testing, integration testing, regression testing, user acceptance testing). Develop automated testing solutions and document testing using standard tooling (JIRA AIO, Postman, Selenium, Cypress).
- Setup and manage reliable and secure environments for product testing and for production deployments, including the use of Docker containers.
- Perform bug fixes and patch releases on software products and digital health tooling for projects.
- Contribute to documentation of technical work products, including release notes, technical architectures and models, data dictionaries, workflow specifications, and other technical documentation.

Potential Outputs:
- Requirements documentation (functional requirements, mockups and wireframes, etc.)
- Interoperability exchanges and documents (Testable FHIR implementation guides, OpenHIE workflows, etc.)
- Code checked into the appropriate GitHub repositories
- Documentation to accompany code or new features
- SOPs covering software development and deployment associated with assigned projects

Requirements:

Knowledge of web/internet application standards, hardware and software technologies (including Java, React, NodeJS, or other scripting technologies), relational database technologies (MYSQL or Postgres). Knowledge of health informatics and interoperability standards (HL7, FHIR, IHE, LOINC, ICD-10, etc).

In addition, the consultant must possess:
- Ability to work on site in Botswana.
- Effective collaboration skills with both local and international remote team members.
- Flexibility in schedule to accommodate collaboration with partners in international time zones.
- Proven ability to quickly learn and apply new technologies.
- Excellent written and verbal communication skills in English. Must be able to communicate technical and non-technical issues to, and provide system level support for, a variety of collaborators and "customers" both internal and external to the University.

Consulting Assignment Details:

This is an onsite consulting opportunity in Gaborone, Botswana. Up to several times per week, the position requires participation in conference calls or meetings during the early morning and late evening to accommodate the time zones of the other countries where I-TECH works**.**

The relationship between the University and any awarded bidder will be that of an independent contractor. The awarded bidder will be expected to enter into a contract with I-TECH. The University of Washington General Terms and Conditions, as well as Federal Grant Terms and Conditions, will be incorporated into any contract award as a result of this solicitation.

The successful contractor(s) will be selected based on:
- Demonstrated ability to provide the requested services
- Previous experience and expertise
- Cost proposal
- References

At its sole discretion, the University may require Vendors to participate in an interview or provide a presentation to the evaluation committee. If so, the score from the interview and/or the presentation may be combined with the score of the proposal to identify the apparent successful Vendor. The University will contact the Vendor directly to schedule the interview/presentation.

Interested candidates should submit the following items by email attachment to Sonora Stampfly, TAP Program Manager at stampfls@uw.edu by March 1, with the subject line "TAP Healthcare Software Developer Consultant":
- Cover letter

- Resume
- Hourly consulting fee rate
- Contact information for three professional references