Position Description	
POSITION TITLE	Senior Applications Developer
CAREER STEP	Independent
REPORTING RELATIONSHIP	Head of Data Management
TEAM	Data Management
DATE	March 2022

The George Institute for Global Health

The George Institute ('TGI') employs 700+ people, focused on improving the health of millions of people worldwide. As a medical research institute affiliated with leading universities and with projects in approximately 50 countries, we are challenging the status quo in healthcare to find the best ways to prevent and treat chronic disease and injury, and to influence policy and practice worldwide. Our innovative commercial enterprises help maximise our impact.

Here is a sample of the things we are doing to achieve our goal of having the greatest possible impact on global health:

- We are identifying better and safer treatments for our biggest killers like stroke, heart disease and high blood pressure
- In many countries, our award winning FoodSwitch smartphone app is helping people make healthy food choices when shopping
- In China, we ran a successful education and awareness program to reduce the amount of salt eaten by people by 25% each day
- In rural India, we have shown that mobile technology can help diagnose mental health, as well as help treat cardiovascular disease, and we're looking at similar approaches to treating chronic diseases in Indonesia and China
- Together with Aboriginal communities in NSW, Australia, we have developed an innovative community led program to assist young Aboriginal drivers attain their license, now implemented in a dozen of locations
- We are developing an affordable dialysis machine, with potential to save millions of lives each year and transform the way kidney disease is treated globally
- And much more…

Context of the Role

'TGI' is developing new processes and resources to manage academic research conducted by staff and affiliates. As part of this, 'TGI' is developing a new strategy to provide Data Management Services to support academic studies.

The Role

The Senior Applications Developer is responsible for planning, implementing, maintaining, and supporting the programming of data management applications to ensure the collection of complete and accurate data for clinical research projects.

Reporting Relationships

The Senior Applications Developer will report to the Head of Data Management.

The reporting status may suffer alterations as result of new structures emerging from TGI's development of new processes and resources to manage our academic research.

Duties and Key Technical Responsibilities

- Assist with the development of web-based applications to enable data collection, reporting and clinical trial data management via the Internet using Oracle, MySQL and MariaDB databases with Centos Linux as the operating system
- Maintain existing programs written in Java/Eclipse using a Spring framework with Hibernate/ JPA
- Maintain systems for data collection with database backends in Oracle, MySQL, MariaDB and MongoDB databases
- Maintain and support APIs for electronic data capture tools e.g. RedCap, IBM Clinical Development APIs
- Action all administrator tasks for the applications developed
- Design and develop reports
- Maintain existing system capabilities, document, and test all revisions
- Assist in troubleshooting any issues with application functionality, data, and APIs
- Execute application changes and corrections within agreed timelines
- Provide ongoing support to all application users
- Participate in the design of new application functions
- Participate in the development and validation of new data management systems and processes as necessary
- Liaise with project staff (Research Fellows, Division Heads, Project Managers, CRAs, Data Managers, Statisticians, external parties) to determine application functionality, data collection and reporting requirements
- Liaise with the IT team as required
- Develop and maintain good communications and working relationships with all internal and external stakeholders

As a Team Member:
- Participate in special projects to improve processes, tools, systems, and organisation
- Take responsibility for personal learning and development and for setting achievable and meaningful work objectives and managing personal targets, meeting obligations of The Institute's Performance Management and Development Policy
- Demonstrate commitment to The Institute's organisational values, including performing to an exceptionally high ethical standard and focus on integrity, collaboration, and teamwork in all efforts.

Work, Health and Safety
- Comply with Work Health and Safety legislation and operate in accordance with established Occupational Health and Safety practice and procedures at the Institute
- Promote and contribute to a safe, secure environment for staff and visitors.

Skills, Knowledge and Experience

Essential

- Strong IT skills including SQL, reporting software, all MS Office applications, web-based databases and the Internet, and strong conceptual ability to learn new software applications quickly
- Experience in reverse engineering application systems
- Working experience of Java and Spring Boot, REST APIs, Oracle, MySQL, MariaDB and MongoDB databases
- Proven ability to handle complex data structures and workflows, large data sets, including reporting and other evaluation procedures
- High level problem solving, analytical, and strategic thinking skills
- Ability to evaluate and recommend changes to existing processes and procedures for greater effectiveness
- Excellent interpersonal skills and the ability to work well and flexibly ie. autonomously, in small teams and with a wide range of varying stakeholders, including senior management
- Ability to see the big picture, whilst still maintaining a focus on detail and implementation
- Ability to be flexible and adaptable in the face of changing organisational priorities and ambiguous environments
- Excellent time management and project management skills
- Excellent written and verbal communication skills
- Strong focus on quality of work.

Desirable

- Tertiary qualifications in science or related field
- Extensive data management experience in clinical and epidemiological research (including, but not limited to, clinical trials)
- A strong understanding of relevant Good Clinical Practice and regulatory guidelines, especially as connected with data quality and accuracy
- Experience with RedCap and IBM Clinical Development EDC