VACANCY NOTICE

Neotree – Junior Software Developer (Zimbabwe)

About

The mission of BRTI is to promote the health and quality of life of the people of Africa through research and training in biomedicine. The institute emphasises the need to establish and maintain the highest levels of quality, professionalism, ethical standards, and efficiency in its activities. BRTI is implementing a Foreign, Commonwealth and Development Office (FCDO) funded project with the Neotree charity, and University College London (UCL), in the UK. Neotree is an innovative digital learning health system, developed in partnership with, and for, nurses and doctors, empowering them to deliver high-quality neonatal care via real-time data capture, clinical decision support, training and education, and data visualisation within a single platform. We are looking for a highly motivated individual to support the project in Zimbabwe, occupying the following position:

Job Title: Junior Software Developer (Full-Stack | HealthTech)
Department: Technical / Product Development

Reports to: Senior Software Developer / Tech Lead

Location: Harare, Zimbabwe (Hybrid: Remote work possible with occasional onsite meetings)

Employment Type: Fixed Term Contract

Duration: 6 months
Deadline to apply: 2359. 27 July 2025

Neotree

Neotree is a digital health system developed to improve newborn care, particularly in low-resource settings. It utilises technology and behavioural science to empower healthcare workers to count and care for every newborn. The system combines digital data capture, education, clinical decision support, and quality improvement initiatives to create a learning healthcare system for newborn care.

Role Overview

As a Junior Software Developer, you will work side-by-side with senior developers on features, bug fixes, and infrastructure tasks across the whole product surface - **Node APIs, front-end web tools, react-native mobile development, data engineering, ML**

workflows, and servers. This is a learning-focused role: you'll ship production code from week one while receiving continuous mentorship, code reviews, and pair-programming sessions.

Areas of Work & Example Tasks

1. **Backend Development (Node.js, GraphQL, PostgreSQL)**
   - Develop and refactor REST or GraphQL APIs
   - Optimise PostgreSQL queries and data structures

2. **Front-End (React, Next.js, TypeScript)**
   - Build UI components using our design system
   - Fix layout, usability, or accessibility issues

3. **Mobile Development (React Native)**
   - Implement features and resolve bugs in the mobile app
   - Contribute to cross-platform performance improvements

4. **Data Engineering (Python, Pandas, Kedro)**
   - Add or enhance ETL pipelines
   - Monitor scheduled jobs and troubleshoot failures

5. **AI / Machine Learning (MLflow, Jupyter, Python)**
   - Prepare datasets, run experiments, and track model performance
   - Package models for API deployment

6. **DevOps / Infrastructure (Ubuntu, Linux Servers)**
   - Maintain cloud and on-premise servers (e.g., MoHCC)
   - Respond to system alerts and ensure uptime

7. **Quality Assurance & Testing**
   - Execute manual and automated test plans
   - Investigate user-reported bugs and write clear issue reports

8. **User-Centred Product Co-Development**
   - Implement features and improvements based on feedback from clinical users and real-world usage

- Collaborate with technical and non-technical stakeholders to understand context-specific requirements
- Adapt code and configuration to support deployment, maintenance, and clinical relevance in low-resource settings.

9. **Other duties**
   - Participate in agile ceremonies (stand-ups, retros)
   - Write concise documentation and changelog entries
   - Perform "**any other duties**" delegated by senior devs

Minimum Qualifications

- Bachelor's degree in Computer Science, Software Engineering, or related field, or equivalent portfolio/open-source contributions.
- Proficiency in JavaScript/TypeScript and at least one of Python or Java.
- Familiarity with Git workflows and basic SQL.
- Ability to read technical documentation and ask thoughtful questions.

Preferred Skills (Not Required, but Beneficial)

- Familiarity with Node.js, Express, or Next.js
- Basics of React or React Native
- Understanding of RESTful APIs and GraphQL concepts
- Exposure to SQL databases (PostgreSQL preferred)
- Basic knowledge of Linux/Ubuntu operations
- Interest in Data Science or Machine Learning workflows
- Experience with Git, GitHub, or version control practices
- Curiosity about HealthTech or working in low-resource settings

Personal Attributes

- **Curious:** eager to dive into unfamiliar code and learn fast.
- **Detail-oriented:** you spot edge-cases and write clean commits.
- **Collaborative:** comfortable receiving and giving feedback.
- **Mission-driven:** passionate about using tech for social impact.

What You'll Gain

- Dedicated mentorship and a personalised growth plan.

- Ability to interact with some of the most respected researchers across different countries (Zimbabwe, UK, and Malawi).
- Opportunity to express your talent without any unnecessary limitations.
- The chance to see your code improve healthcare for thousands of newborns.

Our Tech Stack Includes

- **Mobile Development**
  - **React Native** (for mobile apps targeting healthcare workers)
- **Backend / APIs**
  - **Node.js**
  - **PostgreSQL** for relational database management
- **Data Pipeline & Analytics**
  - **Python**
  - **Kedro** for ETL pipelines
- **Data Visualisation / Dashboards**
  - **Metabase** for analytics dashboards and data visualisation
- **DevOps & Infrastructure**
  - **Ubuntu / Linux Servers**, including local and MoHCC servers

*We value diversity and encourage candidates of all backgrounds, genders, and abilities to apply. If you meet **most** of the requirements but not all, we still want to hear from you.*

Qualified candidates should complete this application form by 27 July 2025, 23:59 CAT.

If you have any further questions, please email neotreezim@gmail.com (specify in the email subject, the job position you are applying for)

Note: Only shortlisted candidates will be contacted