

Title of Position Coordinator: Linux SysAdmin / DevOps Specialist

Employer: University of the Western Cape -> South African National Bioinformatics Institute

Type of Position: Fixed Term Contract

Length of Contract Period: 1 Year contract position

Location: Main Campus - Bellville, WC ZA (Primary)

Closing Date: 31/12/2024

Job Overview

We are seeking a highly motivated and technically skilled **Linux Systems Administration / DevOps Specialist** to join our team, working in the 'ISO-in-a-Box' consortium.

This person will be responsible for developing and evaluating the computational and data infrastructure resources used to support sequencing and public health pathogen genomics initiatives.

They will make use of best practice techniques (such as open source, software defined infrastructure, continuous integration and deployment, version control) to create systems that are performant, resilient and easy to (re-)deploy and maintain.

The ideal candidate will have expertise in :Linux systems administration and DevOps, knowledge of a variety of computing environments including high-performance and cloud computing, and an understanding of how computational infrastructure supports genomic data analysis in public health contexts. Applicants must be willing to travel if required.

Key Responsibilities

- **Infrastructure Management:**
 - Design, implement, and maintain high-performance computing (HPC) and/or cloud systems, servers, and storage solutions tailored for sequencing and genomics research.
 - Monitor system performance, troubleshoot issues, and optimize computational resources for efficient usage.
- **Data Management and Security:**
 - Oversee the storage, access, analysis and backup of large-scale genomic datasets, ensuring data integrity and compliance with security standards.
 - Implement cybersecurity best practices to safeguard sensitive public health data.
- **Software and Tools Integration:**
 - Install, configure, and maintain bioinformatics software, pipelines, and tools for sequencing and genomics applications.

- Collaborate with researchers to integrate computational tools into existing infrastructure and workflows.
- **Support and Evaluation:**
 - Develop documentation and guidelines for best practices in digital research infrastructure supporting pathogen genomics in public health.
 - Work closely with consortium partners to develop instruments for evaluating digital research infrastructure in public health laboratories in Africa.
- **Collaboration and Coordination:**
 - Work closely with the consortium members including, bioinformaticians, quality management experts, training developers and public health professionals to align computational resources with project goals.
 - Liaise with IT departments and external vendors to procure, deploy, and maintain cutting-edge computational infrastructure.
- **Research and Development:**
 - Stay updated on emerging technologies and methodologies in bioinformatics, sequencing, and public health genomics.
 - Contribute to the development of innovative computational solutions to address challenges in genomics research.

Minimum requirements

Essential:

- Bachelor's degree in Computer Science, Bioinformatics, Computational Biology, or a related field.
- Proven experience in computational systems administration, including managing HPC systems and cloud platforms.
- Strong understanding of genomics, sequencing technologies, and public health applications.
- Proficiency in Linux/Unix environments, scripting languages (e.g., Bash, Python), and configuration management tools (e.g., Ansible, Terraform).
- Experience in change management, the git revision control system and continuous integration approaches and software (e.g. Jenkins, Github Workflows, Azure Pipelines)
- Knowledge of database systems (e.g., PostgreSQL, MySQL) and bioinformatics tools.
- Experience in containerization (e.g., Docker, Singularity)

Desirable:

- Experience with workflow management systems (e.g., Snakemake, Nextflow).
- Experience with the Galaxy platform for data analysis
- Previous experience in a research or public health setting.

- Familiarity with ISO and with data security and compliance regulations in public health standards

Key Competencies:

- Excellent problem-solving and analytical skills.
- Strong interpersonal and communication abilities for collaboration across multidisciplinary teams.
- Capacity to manage multiple projects and priorities effectively.
- Commitment to fostering innovation and continuous improvement in research infrastructure.

This post is a 12 month, fixed term contract that may be renewed based on performance. Only applicants with South African citizenship, work permit or residency will be considered.

For enquiries about this post, please contact Alan Christoffels at alan@sanbi.ac.za.

To apply, please email the below documents in a **single pdf file** to fungiwe@sanbi.ac.za.

- Cover letter
- Curriculum vitae (CV)

Please ensure that the title and reference number are indicated in the subject line.

An application which does not comply with the above requirements will be regarded as incomplete. Only shortlisted candidates will be contacted and may be required to undergo a competency test.

DISCLAIMER: By applying for the position, you consent to the University sharing your application, including curriculum vitae, with University stakeholders to process the application. In line with the University's commitment to diversifying its workforce, preference will be given to suitably qualified applicants in line with our Employment Equity Targets. The official retirement age at UWC is 65 years. The University reserves the right to not make an appointment, make an appointment at a different level, seek additional candidates and may conduct competency assessments.