INTERNAL & EXTERNAL- ADVERT
BIODIVERSITY DATA ENGINEERING SCIENTIST
SCIENTIST (PRODUCTION) GRADE C
CONSERVATION PLANNING - PIETERMARITZBURG
POST NUMBER: 352809

TOTAL REMUNERATION PACKAGE: R 925 146.00p/a

The KwaZulu-Natal Nature Conservation Board, trading as Ezemvelo KZN Wildlife, is a PFMA Schedule 3C public entity established in terms of the KwaZulu-Natal Nature Conservation Management Act (Act No. 9 of 1997).

THE ENTITY:

The entity is responsible for the management of nature conservation within the Province of KwaZulu-Natal including protected areas as well as the development and promotion of ecotourism and facilities within the protected areas. Ezemvelo KZN Wildlife wishes to appoint suitable candidates for the positions of Biodiversity Data Engineering Scientist.

PURPOSE OF THE JOB:

Ezemvelo KZN Wildlife seeks to appoint a Data Engineering Scientist to develop and maintain the database architecture and data processing systems for scientific services' biodiversity data.

The successful applicant will be based at Ezemvelo KZN Wildlife's Head Office and must be able to travel to and work in various protected area settings. Be capable of building systems that connect protected area databases, consolidate, oversee and enhance existing biodiversity databases throughout Scientific Services, manage and convert and present existing data into a stable, reliable and usable format for Ezemvelo KZN Wildlife's scientists, planners and its partners for scientific analysis.

QUALIFICATIONS

- Degree in Data Engineering or equivalent NQF level 8 qualification.

- Postgraduate qualifications will be an added advantage.

- A valid Code B Drivers Licence.

- Relevant registration with a legislated Professional Regulatory Body is desirable.

EXPERIENCE

- Two (2) years' experience in corporate data management

- One (1) year experience in GIS and database development in SQL or equivalent is preferable.

- One (1) Year experience in designing and developing web-based data capture and import/export is preferable.

KEY PERFORMANCE AREAS

- Manage large quantities of digital and paper-based data.

- Construct end-to-end data service solutions.

- Build, test, and maintain biodiversity database pipeline architectures, including importing data from various devices (i.e. dataloggers, smartphones, tablets, etc.) used in the field.

- Cleaning data and structuring and integrating data from multiple sources to provide a complete and accurate corporate dataset for scientific intelligence (SI), data analysis and other applications.

- Collaborate with Head-Office and Regional scientists, Conservation Planners, Protected Area, and District Conservation Management to set in place database pipelines and improve the efficiency and accuracy of data collection.

- Employ a variety of languages and tools (e.g, scripting languages) to marry systems together.

- Recommend and implement ways to improve data reliability, efficiency, and quality.

- Develop and/or direct the development of databases to ensure that the architecture (including archiving, backup and restoring data) is current.

- Create new data validation methods and data analysis tools.

- Creation of user interfaces allowing staff and external researchers to upload their data into relevant databases.

- Develop algorithms to transform data into useful and usable information.

- Acquire datasets that align with Ezemvelo's needs.

- Data Warehousing.

- Recommend Use and apply open-source data platform software to reduce costs.

KEY COMPETENCIES REQUIRED

- Data Engineering as described in 'DUTIES' below.

- A working understanding of legislation, legal processes, and legal framework in relation to data and its use.

- Contribute to developing and ensuring compliance with data governance and security policies.

- Excellent verbal and written communication skills in English.

- Demonstrable experience in developing and implementing database pipeline architectures.

- Working proficiency in Microsoft, Word, Excel, Access, NoSQL, SQL, relational database management systems, and programming languages (i.e. Python scientific stack, data structures, and algorithms).

- Generate professional reports.

- Supervise staff.

- Ability to collaborate remotely with a diverse set of team members and stakeholders.

- Be motivated, productive, and organised in a dynamic corporate and field-based working environment.

- Ability to travel to Ezemvelo's protected areas and other conservation agencies in South Africa.

- Undertake and publish relevant research.

DIRECTIONS TO APPLYING CANDIDATES:

The following **mandatory documents** must be submitted.
   a) Fully completed Ezemvelo Application Form for Employment (available from http://www.kznwildlife.com/careers)
   b) Applications without Ezemvelo Application Form and incomplete forms **will not** be considered.
   c) Only shortlisted candidates will be required to submit certified application supporting documents, including qualifications certificates, Driver's License, Identity Document (ID) etc.

The appointment to the post is subject to a positive outcome obtained from all verifications in relation to the position advertised.

Applicants are encouraged to apply for posts through the KZN online e-Recruitment system at www.kznonline.gov.za/kznjobs or submit their Ezemvelo application form directly to the following email address recruitments@kznwildlife.com.

Applicants may also visit any KZN Department's and Public Entity's Designated Online Application Centres (DOACs) where staff will assist you with applying for jobs on the KZN online e-Recruitment system or receiving your hardcopy application.

You can find the list of Designated Online Application Centers (DOACS) at www.kznonline.gov.za/kznjobs.

Please note that applicants should only use one of the following methods when applying for a post:

- either through the online e-Recruitment system,
- emailing Ezemvelo application form directly to recruitments@kznwildlife.com
- submit a hardcopy application to one of the Designated Online Application Centres (DOACS)

For any queries relating to this job-application please contact Recruitment Office on **033 845 1761** during office hours.

Closing Date: 14 February 2025

Applications received after the closing date will **not** be considered. Applicants not contacted within 30 days of the advertisement closing date should consider their applications unsuccessful.

Selection will be made in terms of the Organization's Employment Equity Plan and Preference will be given to members of designated groups. Ezemvelo KZN Wildlife reserves the right not to make the appointment towards this post.