



## JOB DESCRIPTION

### JOB DETAILS

**Job Title:** Hybrid Database Engineer/Developer

**Job ID:** TBD

**Classification:** Band 3

**Classification Date:** (MM/DD/YYYY)

**Branch:** IT Engineering Branch

**Unit:**

**Reports to:** Assistant Director, IT Engineering

**Security Screening:** Yes

**Union/Excluded:** Excluded

### BRANCH DESCRIPTION

The Information Technology Engineering branch provides IT services to BC Pension Corporation that include Solution Design and Engineering, Application Development, and Release Management. Services are delivered from a team of dedicated contributors who provide ongoing support and services to facilitate the execution of the corporation's strategy.

### JOB SUMMARY

The Hybrid Database Engineer/Developer is part of the Data Warehouse Services team within the IT Engineering (ITE) Branch. This team determines approaches, process, and procedures for integrating new technology into the existing and new application infrastructure(s); implements and maintains core application infrastructure; and manages DevOps solutions that automate processes and enable product teams to deliver quality applications.

The Hybrid Database Engineer/Developer plays a pivotal role in building and operationalizing the data necessary for the enterprise data and analytics initiatives following industry standard practices and tools. The bulk of the position's work is building, managing, and optimizing data pipelines, moving them into production for key data and analytics consumers (such as business/data analysts, data scientists or any persona that needs curated data) for data and analytics use cases across the enterprise.

The position collaborates with other data professionals to optimize the quality, security and governance of data models and algorithms, putting them into production for large productivity gains.

### JOB RESPONSIBILITIES

- Builds, creates, and maintains data pipelines from data sources (or endpoints of acquisition) to integration and consumption, optimizing as workloads move from development to production for specific use cases.
- Uses innovative and modern tools, techniques, and architectures to automate the most-common, repeatable, and tedious data preparation and integration tasks, partially or completely, in order to minimize manual and error-prone processes and improve productivity.
- Renovates the data management infrastructure to drive automation in data integration and management.
- Collaborates across departments to work with varied stakeholders within the organization, such as data science teams and with business (data) analysts in refining their data requirements for various data and analytics

initiatives and their data consumption requirements.

- Maintains up to date knowledge of new data initiatives and identifies opportunities to implement within the Corporation.
- Proposes appropriate (and innovative) data ingestion, preparation, integration, and operationalization techniques in optimally addressing data and/or domain requirements.
- Ensures compliance of, and adherence to governance by, data users/consumers during use of data provisioned to them.
- Leads data compliance and governance initiatives to provide education, training and awareness to data users and consumers across the Corporation and develops standards and policies.
- Work with data governance teams and information stewards across the Corporation to vet and promote content created by business areas data scientists, and within the curated data catalog for governed reuse.
- Promote the available data and analytics capabilities and expertise to business unit leaders and educate them in leveraging these capabilities in achieving their business goals.
- Leads project teams to deliver on major data engineering projects, including overseeing sub-projects, with multiple delivery components, and implements required business changes.

## EDUCATION

### Degree/Diploma Obtained

### Program of Study

- University degree in Computer Science or related discipline and five years of related experience; OR
- Diploma in Computer Science or related discipline and six years of related experience; OR
- Certificate in Computer Science or related discipline, or program completion, and seven years of related experience; OR
- An equivalent combination of education, training, and related experience.

## EXPERIENCE

### Years of Experience

### Type of Experience

#### Related experience:

- Strong experience working with large, heterogeneous datasets in building and optimizing data pipelines, pipeline architectures and integrated datasets using traditional data integration technologies. These should include ETL/ELT, data replication/CDC, message-oriented data movement, API design and access and upcoming data ingestion and integration technologies such as stream data integration
- Working with Azure Data Services and Data Storage
- Strong experience in working with data governance/data quality and data security teams and specifically information stewards and privacy and security officers in moving data pipelines into production with appropriate data quality, governance and security standards and certification.
- Strong experience with popular database programming languages including SQL, PL/SQL, T-SQL for relational databases and upcoming NoSQL databases like MongoDB, Cosmos, PostgreSQL and others for nonrelational databases.
- Strong experience in working with both open-source and commercial message queuing technologies such as Azure Service Bus, stream data integration and stream analytics technologies
- Strong experience in working with DevOps capabilities like version control, automated builds, testing and release management capabilities using tools like GitHub, Jenkins, Ansible.
- Strong experience with various Data Management architectures like Data Warehouse, Data Lake, Data Hub and the supporting processes like Data Integration, Governance, Metadata Management
- Basic experience working with popular data discovery, analytics and PowerBI software and others for semantic-layer-based data discovery.

#### Preference may be given for those with:

- Experience working with data science teams in refining and optimizing data science and machine learning

models and algorithms

- Demonstrated success in working with both IT and business while integrating analytics and data science output into business processes and workflows.
- Experience in agile methodologies and capable of applying DevOps and increasingly DataOps principles to data pipelines to improve the communication, integration, reuse and automation of data flows between data managers and consumers across an organization

## **KNOWLEDGE, SKILLS & ABILITIES**

- Strong ability to design, build and manage data pipelines for data structures encompassing data transformation, data models, schemas, metadata and workload management.
- Ability to build quick prototypes and to translate prototypes into data products and services in a diverse ecosystem.
- Demonstrated ability to work collaboratively with stakeholders, external partners, and leaders at all levels of an organization.
- Knowledge of popular open-source and commercial data science platforms such as Python, R and others is a strong plus but not required/compulsory.

## **CORE COMPETENCIES**

### **Enabling & Inspiring L2 - Leading Others**

Motivating, supporting and enabling others to succeed.

- Encourages and values others' input.
- Enables others to demonstrate their competence and capability.
- Coaches and supports others to realize their full potential.
- Empowers others to take initiative and try new approaches.
- Diffuses workplace tension or conflict to enable a productive workplace.

### **Leadership Courage L2 - Leading Others**

Saying and doing the right thing despite potential risk.

- Demonstrates awareness of when to influence and when to be influenced.
- Asks challenging questions in a respectful/constructive manner.
- Addresses challenging situations in a timely and direct manner.

### **Insight & Impact L2 - Leading Others**

Understanding self and others in order to be a positive influence as a leader.

- Considers others' viewpoints and needs when formulating a persuasive rationale.
- Considers others' potential responses.
- Demonstrates authenticity by sharing own thoughts, feelings and experiences as appropriate.
- Remains calm under pressure to help others cope.

### **Navigating Change L3**

Supporting self and others through change and transition and enabling successful transformation in work products and processes.

- Creates a culture that encourages change, innovation and improvement.
- Applies change management models, principles and practices.
- Translates change strategies into specific direction and focus.
- Adapts existing goals, plans and processes, or develops new ones to respond effectively to the change.
- Removes barriers to change.

### **Embracing Learning L2**

Contributing to a learning culture by developing self and supporting others to acquire skills and improve performance.

- Gathers feedback from various sources to identify own strengths and weaknesses.
- Pursues challenging experiences beyond current position to add value in own area.
- Helps others identify learning needs to meet current job requirements.
- Provides honest, timely, clear and specific feedback to others.
- Ensures people are provided appropriate training within available budget and resources.
- Encourages people to reach their full potential.

### **Accountability L3**

Holding self and others accountable to deliver on commitments and to achieve desired results.

- Establishes standards and measures to achieve desired results.
- Allocates resources and assigns responsibilities to achieve organizational objectives.
- Supports others in driving behavioural and performance expectations.
- Entrusts others with responsibility for achieving results.

### **Inspiring Trust L3**

Inspiring confidence by demonstrating integrity and building credibility.

- Brokers healthy relationships across the organization to further the achievement of business goals.
- Promotes dialogue and shared understanding on business issues.
- Communicates complex issues clearly and credibly with varied audiences.
- Confidently and effectively expresses contrary opinions and own perspectives.
- Accepts alternate perspectives in support of business interests.
- Models trust in others to do their jobs.

### **Decision Making L2**

Enabling progress by resolving issues and supporting others in taking calculated risks and making decisions.

- Involves the right people in the decision making process.
- Makes decisions by weighing several factors, some of which are partially defined with missing pieces of information.
- Uses sound business sense to make decisions.
- Considers risks when identifying or recommending options.
- Provides context and rationale for decisions.
- Provides information to others to support decision making on complex issues.

### **Organizational Focus L2**

Aligning work priorities, processes and practices to achieve the strategic direction.

- Optimizes processes or practices to support the achievement of organizational goals.
- Helps team members understand the broader vision and how their work is aligned.
- Identifies broader implications of proposed positions, options and approaches.
- Makes connections between situations and patterns to improve decision making.
- Recommends approaches to address issues with a longer term perspective.