Data Engineer
POSITION DESCRIPTION FORM

Region / Portfolio / Directorate:
State Intelligence and Command

District / Branch:
Data Science and Analytics

Work Unit:
Data Management Unit

Position Description Number:
Generic 479

Rank / Level / Band:
Level 4

Employment Conditions

Industrial Agreement/Award: Current PSA PSCSAA and Agency Specific Agreement

Work Pattern: Monday – Friday (Day Work): May be required to work outside normal operating hours

Location: Perth

Position Objective

Provides support to and ongoing maintenance of the Data Science and Analytics data assets. Ensures the quality and integrity of data and information.

Role of Work Unit

The Data Management Unit (DMU) is responsible for maintaining a trustworthy foundation of data to support analytics across the Agency by managing data technologies through the application of high-performance computing, large scale data integration and emerging analytical platforms. This involves the management and engineering of data pipelines and databases for both near real-time and batch processes for the purpose of provisioning data to support statistical and operational tools and products for data science, analysis and reporting.

DMU ensure the quality and integrity of data and information for all DSA data assets. In addition to engineering responsibilities they are required to perform administration, security, patching and updates and take the technical lead on projects within DSA. DMU use a modern Azure data stack including Synapse Analytics, Azure SQL and PowerBI Premium with Graph Technology currently being introduced into the Agency.

Main activities of DMU:
- Understanding and managing the quality of data sources and liaising with data scientists and analysts to inform strategies to manage impacts and effects of this
- Interrogating data in corporate systems and data holdings to apply analysis, design, modelling, and quality assurance techniques and establishing, modifying or maintaining data structures and their components.
- Informing strategy and architecture and providing advice to analysts, report designers, data scientists, intelligence analysts and investigators using the data structures and associated components
- Building robust pipelines that support the ingestion of transactional data with high levels of performance and availability
- Designing targeted data structures to support analysis
- Influencing senior stakeholders through technical expertise, customer/domain knowledge and vision and objective, collaborates with senior stakeholders for new initiatives.

Reporting Relationships

This position reports to:
- Executive Manager, Level 7

Direct reports to this position include:
- Nil

Total number of positions under control: Nil

Key Accountabilities

1   Data Extract, Transform and Load (80%)

1.1   Monitors the Extract, Transformation and Load (ETL) and Extract, Load and Transform (ELT) processes from corporate systems and data holdings for ingestion and develops, reviews and implements new data extractions to meet data science, analytical and reporting needs.

1.2   Assists with building robust pipelines that support the ingestion of transactional data with high levels of performance and availability. Implements targeted data structures to support and facilitate the efficient and effective use of information resources for data science, analytical and reporting needs.

1.3   Reviews business and functional requirements and reviews mapping transformations done by the ETL team.

1.4   Creates Test Plans, tests scripts, execute test scripts and write Test Reports.

1.5   Establishes projects, roles, users, privileges in different ETL environments.

1.6   Contributes to the effective administration and maintenance of the Azure Platform.

2   Research & Analysis (15%)

2.1   Researches and analyses data warehousing and information management issues.

2.2   Identifies and analyses data requirements to facilitate the appropriate use of information from data assets .

3   Other (5%)

3.1   Understands and complies with information security policies and procedures to ensure information holdings/systems are kept confidential and utilised accurately and reliably.

3.2   Demonstrates and advocates a high level of ethics and integrity in accordance with the Agency's professional standards and Code of Conduct including reporting wrongdoing.

3.3   Undertakes other duties as directed.

Specialist Prerequisite(s)

It is a requirement that the position holder is:
- An Australian Citizen prior to the completion of the selection process;
- Successful in obtaining and maintaining a **NEGATIVE VETTING LEVEL 2** security clearance for the duration of their appointment in the position.

Work Related Requirements

Essential	Context in which work related requirements will be applied and or general standard expected.
Data engineering experience	Undertaking the administration of security for Users and Groups. Engineering, monitoring and supporting data pipelines and databases for the purpose of provisioning data to support statistical and operational tools and products for data science, analysis and reporting.
Data extract, transform and load	Developing and running scripts to extract data from transactional systems, transforming and loading into data sets for access by Data Analysts.
Analytical skills	Interpreting requests for data and proposing appropriate options and solutions, and/or escalating issues for resolution where required.
Communication skills	Liaising with a broad range of individuals and organisations internally and externally. Consulting with clients to clarify requirements and negotiating outcomes according to time and resources available.
Organisation skills	Managing own workload and demonstrating flexibility in managing competing priorities. Establishing tasks and timeframes to successfully achieve objectives.
Computer Skills	Using a modern Azure data stack e.g. Synapse Analytics, Azure SQL and PowerBI Premium as well as interrogation of a range of databases.
Desirable	
Experience in change management activities	Including system maintenance, platform outages and data migration principles from Development to Production environments.
Possession of or progression toward a relevant tertiary qualification	Information technology, computer science or computer systems engineering).

Capability Framework

The framework is intended to support staff and supervisors through the performance cycle and identify core competencies relevant to the rank and/or classification level.

Certification

The details contained in this document are an accurate statement of the duties, responsibilities and other requirements of the position.

Position Title and Work Unit	Name	Date
A/Executive Manager, Organisational Design & Analysis	Martine Dimond	26/04/2022
Assistant Director, Data Science & Analytics	Janelle Bailey	24/04/2022