DEPARTMENT OF DEVELOPMENTAL SERVICES
INFORMATION TECHNOLOGY DIVISION
DEVELOPMENT & DATA SERVICES BRANCH

DUTY STATEMENT

JOB TITLE: Information Technology Specialist I   **POSITION #**: 472-505-1402-908

WORKING TITLE: Data Engineer   **EMPLOYEE:** Vacant

POSITION DESCRIPTION:

Under direction of the Enterprise Data Operations Branch Chief and technical direction of Data Management leads, the Information Technology Specialist I (ITS I) will play a pivotal role in department-wide data management in support of data engineering solutions and technical infrastructure. The scope of work encompasses building and managing data pipelines and enterprise data management solutions for business informational needs. The ITS I will be part of a high functioning technical team, working closely with the Data Operations team and IT staff to provide excellent customer service. The ITS I must work well independently and as part of a cohesive team with essential skills in time management, work quality integrity, interpersonal relationships, dependability, taking initiative, and open to learning new tools and skills. When required, this position may also act as a team lead on small to medium complex data projects within this scope.

SUPERVISION EXERCISED: None.

SUPERVISION RECEIVED: Enterprise Data Operations Branch Chief

DOMAINS:

Database Engineering:	critical skills
Business Technology Management:	basic skills
Client Services:	basic skills
Information Security Engineering:	moderate skills
IT Project Management:	moderate skills
Software Engineering:	moderate skills

EXAMPLES OF DUTIES:

Essential Job Functions:

30%   Architect, create and maintain data pipelines between department application systems, data warehouses, and third-party systems. Manage and support ETL and ELT processes for replication of data to the data warehouse or data lake. Handle data integration tasks for the department, determine data-related needs and recommend quality improvement processes. Perform data cleansing, transformation, enrichment tasks and follow industry best practices and guidelines to ensure that data is sufficiently available and of good quality to meet the department's needs.

30%   Manage and support the data warehouse and data management infrastructure. Make recommendations for quality improvement using best practices and draft or update standard operating procedures (SOPs). Diagram current and new architecture using Miro or equivalent tool.

20%   Process data requests for permission to access data from data warehouse. Provide timely and quality customer support to the EDO Data Operations group and Department stakeholders.

15%   Work with project managers, data business analyst, data science teams, and stakeholders on projects and assignments and ensure timely completion of tasks. Draft whitepapers by analyzing data management issues, identifying problem-sets, and providing recommendations for solutions and alternative processes.

Marginal Job Functions:

5%   Complete other required duties within the scope of this position

DESIRABLE QUALIFICATIONS:

Knowledge of: Departmental and IT (Information Technology) policies and procedures to conform to industry and state IT best practices; data management architectures like data warehouse, data lake, data hub and the supporting processes like data integration, governance, metadata management and data management best practices; IT principles and practices for application analysis, design, development, implementation, testing, maintenance, documentation, etc. used in the delivery of IT systems; experience with any data cataloging tools; prior experience with State/Federal government departments; and project management principles, practices, and procedures to ensure delivery of quality IT products and services.

Ability to: Design, build and manage data pipelines for data structures encompassing data transformation, data models, schemas, metadata, and workload management; work across multiple deployment environments including cloud, on-premises and hybrid, and multiple operating systems; coordinate with staff on project issues and status for successful delivery; evaluate technical proposals for IT solutions to make effective recommendations; establish and maintain cooperative working relationships with others; communicate effectively both written and verbally to exchange and/or provide information to management, staff, customers, and others; document standard operating procedures and create architectural diagrams; complete training certifications in Amazon Web Services (AWS); and prepare and make presentations.

REQUIRED SKILLS AND EXPERIENCE:

Experience in 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, CEP and data virtualization; experience with AWS cloud platform is required especially those related to data engineering such as S3, AWS Glue, Lambda, Step Functions, API Gateway, etc.; experience with code repositories such as GIT and/or Azure DevOps; experience with advanced analytics tools for Object-oriented/object function scripting using languages such as Python, Apache spark, and Pandas; experience with popular database programming languages including SQL, PL/SQL, and/or T-SQL; experience in working with data governance/data quality and data security teams, data stewards, and privacy and security officers in moving data pipelines into production; experience working with open-source tools/frameworks such as FastAPI; experience with database and application data masking techniques; experience securing personally identifiable information (PII), protected health information (PHI) and other confidential data; and experience extracting data from mainframe, relational, data warehouse, AWS services, and other data sources.

WORKING CONDITIONS: The incumbent will be working in open-spaced partitioned offices for prolonged periods on a computer up to 90% of the time. This position is a hybrid, in-office/telework position, and may be subject to change. Incumbent can be required to report to the office, or any designated location at any time. Telework agreements can be modified and/or cancelled at any time.

CERTIFICATION OR LICENSE: None

Employee Name	Employee Signature	Date (Print)

Manager Name	Supervisor Signature	Date (Print)

Employee and Manager acknowledge that by signing this Duty Statement that they have discussed and agree to the expectations of the position.