



JOB DESCRIPTION

Title:	GIS PROGRAMMER ANALYST
Department:	Information Technology
Class Code:	3263
FLSA Status:	Exempt
Effective Date:	July 1, 2023

GENERAL PURPOSE

Under the general supervision of the GIS Supervisor, provides advanced technical and industry expertise to support the various geospatial, GIS programming, and automated needs of Murray City. Assists in maintaining Murray City's enterprise Geographic Information System (GIS) and utilizes professional GIS experience, knowledge of computer programming, complex problem-solving skills, and interdepartmental coordination to advance the goals, vision, and mission of Murray City and the IT department.

ESSENTIAL DUTIES

- Uses computer programming knowledge and experience to interface and integrate python scripts, tools, and models with/into Murray City's GIS program.
- Utilizes best practices, methods, and standards with Python, SQL, VBScript, and other programming languages to create tools, scripts, and models that integrate datasets, databases, and servers into the GIS program and GIS applications.
- Creates, modifies, and manages SQL tables and views in SQL Server Management Studio and integrates and updates tables and data in GIS and Cityworks environments using python.
- Takes lead on, maintains, and develops Murray GIS's Programming Master Plan, ensuring automated program and processes are thoroughly documented, organized, functional, effective, and reliable.
- Supports, develops, and maintains GIS program utilizing a variety of GIS software, tools, applications, and programs including but not limited to: ArcGIS Desktop, ArcGIS Pro, ArcGIS Online, ArcGIS Portal, Survey123, ArcGIS Server, other ESRI applications, UtiliSync, Cityworks, SQL Server, and additional software as needed to support.
- Develops and maintains GIS databases and datasets to support department projects throughout Murray City. Responsible for identifying patterns, trends, and sequences in the data that can inform decision making and effective project management through geospatial analysis.
- Produces maps, figures, tables, and a variety of deliverables of both spatial and aspatial data for all departments in Murray City, including but not limited to Public Works, Power, Community & Economic Development, and Public Safety.
- Coordinates directly with and processes requests from all city departments to develop and maintain effective GIS datasets.

- Edits, maintains, analyzes, and performs quality control (QA/QC) on GIS datasets used for critical functions throughout the city.
- Supports, administers, and develops Cityworks (AMS) for all city departments. Works closely with staff to identify various needs and develop service requests, work orders, inspections, and other tools to accommodate each department's workflows.
- Creates web maps, interactive dashboards, figures, and other reports to aid in analysis, planning, and high-level decision making.
- Integrates multifaceted operations like dispatch, inventories, transportation modeling, pavement management, storm water modeling, GASB 34 assessment, sidewalk safety/ADA data assessment and impervious area assessment.
- Conducts GIS data capture using GPS/GNSS equipment as well as other methods such as heads-up digitizing.
- Interacts with Tyler Munis (ERP) database tables and performs a variety of data entry, quality control, and synchronization procedures to optimize effectiveness of citywide databases.
- Performs a variety of video, image, and other related media capture and editing assignments.
- Comprehensively documents GIS workflows to aid cross-training of other personnel and establish consistency in the division's methodologies.
- Provides training and technical support to city staff for GIS applications, GPS data collection, Cityworks functionality, and other related software as needed.
- Performs related duties as required.

MINIMUM QUALIFICATIONS

Education and Experience

- Graduation from a college or university with a bachelor's degree in geography, urban planning, computer science, or closely related field and four (4) years of full-time working experience performing advanced GIS tasks and analysis or an equivalent combination of education and/or experience including but not limited to a GIS certificate from an institution of higher learning or a dedicated GIS internship.

Special Requirements

- Must possess a valid Utah Driver License within six (6) months of hire.

Necessary Knowledge, Skills and Abilities

- Proficient in the Esri suite of software and SaaS.
- Extensive experience with Python and SQL.
- Excellent knowledge of Windows OS and networking components and relational databases.
- Fundamental understanding of cartographic principles and best practices.
- Ability to incorporate interoperability between different data systems and software such as the ESRI Suite, AutoCAD, MS Office, SQL Server, etc.
- Ability to learn and use applications and programming tools such as HTML 5, JavaScript, Crystal Reports, and other programming languages pertinent to GIS.
- Ability to operate high accuracy GPS/GNSS equipment.

- Ability to maintain positive and productive working relationships with supervisor, coworkers, and other city staff.

TOOLS & EQUIPMENT USED

- Personal computer including word processing, spreadsheet, and design software; various mobile devices, phone, printers, copiers, GPS/GNSS equipment, large format plotters, unmanned aircraft systems (UAS), and other equipment used in this position.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- While performing the duties of this job, the employee is required to stand, sit; walk, talk or hear; use hands to finger, handle, feel or operate objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to climb or balance; stoop, kneel, crouch or crawl, and smell.
- The employee must occasionally lift and/or move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus. Must be able to meet DOT hearing standard requirements.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Work is performed primarily in an office setting. The noise level in the work environment is usually quiet to moderate.

DEPT/DIVISION APPROVED BY: _____ DATE: _____

EMPLOYEE'S SIGNATURE: _____ DATE: _____

H. R. DEPT. APPROVED BY: _____ DATE: _____