

GEOGRAPHIC INFORMATION SYSTEM (GIS) SPECIALIST

DEFINITION

To perform design, implementation, troubleshooting, maintenance, data and database administration, web development, spatial data creation, establish and maintain standards, project management, and system integrations of the City's Geographic Information Systems; and to provide technical support to an assigned supervisor.

DISTINGUISHING CHARACTERISTICS

This is an advanced journey level classification. Employees within this class participate in designing the operating procedures and policies of the work unit and initiate various activities in response to customer and system support needs. Employees at this level typically lead projects or teams and receive instruction or assistance only as new or unusual situations arise.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Information Technology Manager; and may receive technical and functional supervision from more experienced staff.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Support, maintain, design, development, installation, configuration, test, deploy, and document databases, application software, system modeling tools, and drawing and symbology standards as relates to day-to-day enterprise GIS systems and infrastructure.

Establish, maintain standards, and ensure database consistency and accuracy across all GIS data from all departments.

Perform support, maintenance, enhancement and development of the GIS related database(s), data schema, data tables, and attributes

Review and correct potential map, application, server, and data issues including data accuracy and proactively ensure the highest levels of GIS systems and infrastructure accessibility and reliability

Integrate GIS systems and data with utility system data, work management, accounting, customer information, meter reading, call center and engineer modeling systems, etc.

Provide proactive and ad-hoc geographic data manipulation to ensure accessibility and reliability; perform special analysis for all facets of the City's GIS including the vector and attribute information and system interfaces.

Provide customer support and technical assistance with GIS enterprise environment to all city departments as required.

Develop GIS system, data, and data maintenance standards, documentation, and user manuals

Provide training to GIS users on best practices and data maintenance methods.

Serve as technical lead and coordinate all GIS user group meetings, activities and integrations with other departments and teams as needed; act as liaison with City departments to provide support for GIS services; act as conduit for information to and from the Information Technology Department.

Provide support to departments for mapping and reporting of City utility data and supporting land information, including but not limited to: Addresses; Parcels; Streets; Water; Wastewater; Recycled Water; and Electric system infrastructure

Research, evaluate, and recommend purchase of GIS related or integrated hardware and software systems.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Foster an environment that embraces diversity, integrity, trust, and respect.

Be an integral team player, which involves flexibility, cooperation, and communication.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Esri ArcGIS Enterprise software suite (10.x or greater), ArcGIS Online, and Autodesk products.

Principles and practices of standardized GIS methodology and documentation.

Principles and practices of map making, spatial analysis, web map programming and applications (XAML, HTML5, JavaScript).

Programming languages (VBA, SQL and XML, Python, ArcPy).

Relevant local, State, and Federal laws, rules and regulations related to area of assignment.

Microsoft Windows Server Operating Systems.

Microsoft SQL Server databases and related applications.

Ability to:

Develop, design, install, configure, test, deploy and maintain the full stack of enterprise GIS systems, data, web applications, mobile apps and databases.

Review, evaluate, and develop documents related to department operations; observe, identify and problem solve office operations and procedures; understand, interpret, and explain department policies and procedures; explain operations and problem solve issues for the public and with staff.

On a continuous basis, sit at desk for long periods of time or stand at public counter; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone; write or use a keyboard to communicate through written means; and lift or carry weight of 10 pounds or less.

Research and determine the accuracy of new and existing map layers through inspections and documentations.

Develop web-based map querying capabilities.

Prepare customized reports based on spatial analysis and data linkage.

Develop GIS system handbook and procedure manual.

Use sound judgment in recognizing scope of authority.

Operate and use modern office equipment including computers and applicable software.

Maintain regular attendance and adhere to prescribed work schedule to conduct job responsibilities.

Utilize appropriate safety procedures and practices for assigned duties.

Establish and maintain effective working relationships with those contacted in the course of work.

Work with various cultural and ethnic groups in a tactful and effective manner.

Communicate clearly and concisely, both orally and in writing.

Experience and Training

Any combination of experience and training that would provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Experience:

Three years of responsible GIS technology experience encompassing similar duties listed above, supporting data and environments built on Esri ArcGIS Enterprise software suite and ArcGIS Online.

Training:

Equivalent to a Bachelor's degree from an accredited college with major course work in GIS, geography, computer science or a related field.

License and Certificate

Possession of a valid California Class C Driver License may be required at the time of appointment. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis.