

GEOGRAPHIC INFORMATION SPECIALIST

Salary Range \$34,000 - \$61,000

GENERAL DESCRIPTION

Performs routine GIS work, including data management, analysis, and cartography. Work involves input and manipulation of geographic information to create, maintain, display, update, and produce accurate desktop, paper, and web-based maps and other representation of data. Works under limited supervision with moderate latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Responsible, with some outside contractor support, for maintenance and quality control of the District's SQL Server back-end database, which supports web mapping and permitting.

Creates and modifies maps, graphs, and/or diagrams, using GIS software on an as-needed basis for District staff.

Responsible for gathering and compiling geographic data from a variety of sources such as field observations, satellite imagery, aerial photographs, and existing maps, and integrating these into the District's current GIS.

Converts hard-copy data to digital data, and maintains spatial databases of relevant information, documents procedures using metadata, validates data for accuracy and completeness, completes approved metadata forms, and produces maps of the resulting information in support of a variety of District work.

Evaluates information and data from outside sources to determine the quality of the data; translates said data; and converts data to assist District staff.

Identifies and executes specific database queries for analysis of problems. Exports and imports data. Creates and modifies databases in Access and SQL Server. Sets up forms, writes reports, and exports data from Access and/or SQL Server to other software such as Excel.

Develops automated routines using Python, Model Builder, and other languages to support user interfaces, menus, and commands to meet a variety of District user needs.

Enters, corrects, and debugs database records in SQL Server

Performs related work as assigned.

GENERAL QUALIFICATION GUIDELINES

Experience and Education

Experience in GIS and database analysis and design work. Completion from an accredited four-year college or university with major coursework in geography, engineering, natural sciences or other related field. Two or more years practical experience in at least several of the following: ESRI GIS products (ArcGIS and its extensions; 3D Analyst and Spatial Analyst; ArcGIS Server); SQL Server; geo database design and creation; metadata creation; Microsoft Office software; GIS development including data acquisition, digitizing, geo-referencing, and data format conversion; GIS map production including layout, labeling, and hard-copy production; GIS analysis including buffering; spatial analysis using raster and vector data; and web-mapping. Experience and education may be substituted for one another.

Knowledge, Skills, and Abilities

Knowledge of terminology related to geographic information systems, including legal descriptions, cartography, engineering, aerial photography, and ortho photography.

Skill in solving problems; in testing, installing, and implementing GIS programs; and in troubleshooting system issues.

Ability to analyze geographic information systems and procedures; to read and interpret surveys, legal descriptions, cartography, engineering documents, aerial photography, and ortho photography; to communicate effectively both orally and in writing; and to meet deadlines.