CITY OF HAMILTON

CORPORATE SERVICES DEPARTMENT
(INFORMATION SERVICES DIVISION – BUSINESS APPLICATIONS - LOCATION – 55 YORK BLVD.)

GIS DATA ANALYST

SUMMARY OF DUTIES

Reporting to the Supervisor, Business Applications (Spatial Solutions Services), the GIS Data Analyst is required to maintain and assist in administering the City's Corporate GIS database (i.e. data entry, editing, manipulation and quality control). Performs information product generation tasks (i.e. queries, geo-processing, tabular summaries and reports), and provides customer service to internal staff and external clients. Assists in the development of methodologies for database input and maintenance by staff.

GENERAL DUTIES

Assists the GIS Coordinator in maintaining and improving the use of spatial data as a corporate resource including designing, developing and maintaining the corporate Spatial Data Repository and Spatial Meta Data Repository

Collaborates on the development, implementation and maintenance of GIS database and/or application development standards, and in the development and review of GIS database specification and design documents for both "in-house" and contracted database development.

Implements information standards (i.e. GIS best practices, metadata standards, and data dictionaries), through data collection, and edit processes and procedures.

Updates, maintains, manipulates and analyses the City's Corporate Geographic Information System. Prepares and executes special data reports and quality assurance and quality control procedures.

Oversees and undertakes the collection and distribution of resource data.

Ensures and verifies the quality and integrity of data collected.

Works with City staff in gathering and preparing data for use within a GIS database. Edits spatial and tabular resource information and certifies compliance with provincial and corporate data standards within the local context.

Undertakes and assists in the analysis and reconciliation of conflicting data from spatial database sources.

Provides input into the development of standards for data dissemination, compatibility, valuation, maintenance, quality control, and copyright license agreements, including maintaining and monitoring information partnership and agreement files.

Develops FME and Python scripts to improve spatial data workflows such as data entry, editing, cleaning, and optimization.

Determines optimal code design, structure, program logic from detailed functional and technical specifications and/or process/business flows.

Participates in the development and maintenance of application User documentation

Researches, compiles and synthesizes information with regard to Esri applications.

Supports staff in the use and understanding of hardware, software and peripheral equipment.

Assists in troubleshooting problems with GIS applications and databases to resolve issues and identify root cause. Escalates as required.

Provides guidance and expertise for field and office data collection projects, recommends standard data and database field/file formats.

Performs other duties as assigned which are directly related to the major responsibilities of the job.

QUALIFICATIONS

1. University Degree or College Diploma in Geographic Information Systems, Engineering, Land Surveying, Geography and Urban Planning or related disciplines including Library Science, Computer Science, Information Systems

2. Progressive years of demonstrated experience and proven knowledge in mapping and spatial database analysis and user support, including practical experience working with GIS technology (Esri suite of products preferred), preferably in a municipal environment.

3. Demonstrated experience and proven knowledge in designing and implementing spatial database technology, preferably in a municipal or related environment.

4. Working knowledge and experience with a range of computer and software including, GIS products (e.g. Esri ArcGIS), GIS databases (e.g. ArcSDE, Oracle 12c, SQL Server), GIS terminology, GIS methods and techniques, scripting languages (eg. FME, Python), cartography and cartographic procedures, coordinate systems and projections, geo-spatial digital imagery, digital equipment (e.g. survey, GPS, data collectors) on-site users GIS and tool support and trouble-shooting, managing GIS software and databases.

5. Must have knowledge of standards and methodologies for GIS data management including, integration, conversion, manipulation, transfer, compatibility, valuation, storage and maintenance, data security and quality controls for data entry to manage the data life cycle

6. Working knowledge of relevant legislation (i.e. Freedom of Information and Protection of Privacy Act, etc), and procedures related to information management, data standards, intellectual property rights, data security, copyright license data sharing agreements and privacy to ensure data is maintained in a secure environment and that the City's interests are met and value gained.

7. Must have good attention to detail and demonstrate analytical, problem solving and technical skills to manage, maintain, update and prepare database records (spatial & tabular formats), manipulating, analyzing and managing tabular and spatial data; and to resolve technical problems and information requirements by gathering/analyzing data, selecting/designing desired file and record format requirements, documenting revisions undertaken.

8. Working knowledge of office software applications (e.g. Outlook, Word, Excel, PowerPoint) in support of communications, reporting, presentations and training.

9. Knowledge of project management methodologies, including capacity to monitor projects, track work and provide input into work planning.

10. Good written and oral communications skills including experience preparing reports, technical instructions, and data share agreements.

11. Good interpersonal skills to effectively deal with requests and concerns of clients/partners.

12. Ability to work both independently as well as in a team environment, work under pressure and meet deadlines.

THE INCUMBENT SHALL COMPLY WITH ALL HEALTH AND SAFETY POLICIES AND PRACTICES FOR THIS POSITION AND THE WORKPLACE.

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