Geographic Information Systems (GIS) Analyst - Advanced
Information Technology (IT) Division – Enterprise Support Services Section
$67,092 - $87,036 annually

Job Overview

The GIS Analyst – Advanced supports TDOT's mission by utilizing expert-level GIS methodologies and tools to address complex spatial challenges. This position is responsible for evaluating and implementing GIS software and hardware solutions, conducting spatial analysis, and designing custom GIS applications that enhance data-driven decision-making. The GIS Analyst - Advanced plays a critical role in integrating GIS technology into TDOT's business processes, promoting innovation, efficiency, and statewide consistency. This position reports to the IT GIS/Training IT Manager – Senior.

This position will implement Department GIS policies, methodologies, tools, resources, procedures, relevant training, governance, and manuals to lead and assist the Enterprise Support Services Team in producing work products and services required to implement GIS, geospatial data, and mapping functions. The Enterprise Support Services GIS Analyst - Advanced will implement national best practices within the Enterprise Support Services Team and report and recommend ideas that drive innovation and efficiency.

Essential Job Responsibilities

Perform advanced geospatial analysis using TDOT-supported GIS platforms and tools to support planning, engineering, and operational decision-making; evaluate the utility of GIS data, models, and tools to ensure alignment with business needs and agency goals.

Integrate Quality Management into all GIS work products and services in coordination with the IT Division's Quality Assurance team, ensuring consistency, accuracy, and alignment with statewide standards.

Manage change, clarify the vision, take ownership of the change, communicate effectively, remain transparent, and hold yourself and others accountable throughout the process.

Support the Enterprise Support Services Section in delivering exceptional customer service to internal and external stakeholders by providing timely and accurate spatial data, maps, applications, and technical support while maintaining complete and accurate documentation.

Guide the development and implementation of GIS data standards, spatial models, and analytical workflows; provide technical leadership for creating custom applications and geospatial solutions for complex projects with agency-wide impact;

support the review and quality control of GIS-related work products and contribute to risk assessments for data-driven initiatives.

Contribute to the identification and implementation of national best practices for GIS at TDOT; research and evaluate emerging GIS technologies, tools, and techniques; and incorporate statutory and regulatory requirements into geospatial practices and documentation.

Develop, enhance, and maintain GIS infrastructure and applications supporting enterprise-wide GIS integration while complying with state and federal data management, security, and interoperability standards.

Support the delivery of GIS work products and services that are consistent, predictable, and repeatable, establishing a high level of reliability, risk mitigation, and performance across agency functions.

Qualifications
Education and Experience: Graduation from an accredited college or university with a bachelor's degree and experience equivalent to two years of experience in: 1) software applications development for Geographic Information Systems, or 2) the creation of maps or related reports using Geographic Information Systems software or hardware.

Substitution of Experience for Education: Qualifying experience in one or a combination of the following areas may substitute for the required education, on a year for year basis, to a maximum of four years: 1) any geographical measurement work including but not limited to computer aided drafting design, software applications development for Geographic Information Systems, or the creation of maps or related reports using Geographic Information Systems software or hardware, or 2) any information systems work including but not limited to computer programming, database administration, or information systems analysis.

Substitution of Graduate Education for Experience: Additional qualifying graduate course work in geography may substitute for the required experience, on a year-for-year basis, to a maximum of one year (e.g., 36 graduate quarter hours in geography may substitute for one year of the required experience.

Ideal Candidate

The GIS Analyst - Advanced is a detail-oriented and analytical problem-solver passionate about using spatial data to improve public services. They bring curiosity, creativity, and a commitment to innovation while maintaining a high standard of accuracy. The GIS Analyst - Advanced is an effective communicator and collaborator who thrives in cross-functional environments and supports others through training and knowledge sharing. They are adaptable and forward-thinking, continually seeking ways to align GIS capabilities with TDOT's strategic goals.