Job Description

Job Title:	GIS Developer
Department / Location:	Engineering
Reports to (Job Title):	Manager of Applications & Development
Prepared by:	Matt Misera
Date of Submission:	November 2025
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About Us

RedZone Robotics provides innovative and customized asset management solutions for underground infrastructure by delivering data-driven insights utilizing advanced robotics platforms, leveraging AI predictive tools and software to empower industry experts in making proactive decisions. RedZone Robotics believes that what lies underground directly affects the communities that live above. Our process, from inspection to data delivery, is guided by the belief we all deserve a safe place to live, work, play, and grow old.

If you are interested in a friendly, cooperative, and exciting corporate environment where you will be continually challenged and opportunities abound, RedZone Robotics is the place for you!

Learn more about us at www.redzone.com.

General Job Function

The GIS Developer will work on the design, development, and maintenance of Geographic Information Systems (GIS) applications. This role heavily involves writing code, integrating GIS data with custom applications, and ensuring the seamless operation of GIS tools used to analyze, visualize, and manage geographic data within customized in-house applications.

The ideal candidate must have a strong background in development with programming languages such as Python, JavaScript Libraries such as React / VueJs, or C#. A strong background in GIS development and proficiency in GIS software is preferred. They must also be able to collaborate with cross-functional teams to meet business and project requirements.

Duties and Responsibilities (in order of priority)

- Design, develop, and maintain GIS applications and tools that support spatial data analysis, mapping, and visualization.
- Write clean, efficient code in languages like Python, JavaScript, or C# to integrate GIS functionality into custom applications and workflows.
- Work with both 2D and 3D spatial data and integrate various GIS technologies, including ArcGIS, QGIS, PostGIS or other similar platforms into client-facing applications.
- Manage spatial databases (e.g., PostgreSQL/PostGIS, SQL Server) and create efficient queries to extract, store and analyze geographic data.

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• Develop interactive maps, dashboards and geospatial visualizations for various stakeholders, including clients, business analysts and data scientists.
• Work closely with business analysts, cartographers and other developers to translate business requirements into GIS-based solutions.
• Ensure the efficiency and scalability of customized in house GIS applications, with a focus on performance optimization for large spatial datasets displayed in web browsers and mobile applications.
• Troubleshoot GIS-related issues and provide support for users in utilizing customized GIS applications effectively.
• Prepare and maintain technical documentation, user guides and best practices for GIS applications.
• Perform other duties as assigned

Education and Qualifications	
Education Level (Degree, Area of Study) – Minimum Requirement:	Bachelor's degree in Computer Science, Geography, GIS, Geospatial Technology or a related field
Years of Experience (if applicable):	2 - 3 years in GIS development or a similar role
Additional Experience:	• Experience with spatial databases (e.g., PostGIS, SQL, Server with spatial extensions) • Experience with web mapping technologies (e.g., Leaflet, MapServer, OpenLayers, ArcGIS API for JavaScript) • Experience with RESTful APIs, Web Map Services (WMS), Web Feature Services (WFS) or GEOJSON • Knowledge of web development frameworks (e.g., React OR VueJs) is required

Skills and Competencies	
Technical	• Strong working knowledge of programming languages such as Python, JavaScript (React / VueJS) or C# • Proficiency of GIS platforms and GIS integrations (ArcGIS API / SDK, QGIS or similar) • Familiarity with GIS data formats (e.g., Shapefiles, GEO Database, GeoJSON, KML, GML) • Familiarity with tools like ArcGIS Server, ArcGIS Online, or other cloud-based GIS platforms • Experience with cloud GIS services (e.g., AWS, Azure, or Google Cloud) • Experience with spatial analysis, geospatial modeling, or geo statistics but not required • Knowledge of user interface and user experience best practices for geospatial applications • Experience working in Agile development environments

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Communications	• Excellent written and verbal communication skills with the ability to explain technical concepts to non-technical stakeholders • Effective communicator with the ability to understand departmental and company needs • Strong propensity to listen and ask the right questions of customers and the organization • Ability to understand and follow administrative policies and processes within the organization • Demonstrated ability to respond appropriately to requests for information appropriately • Fluent in English
Teamwork & Collaboration	• Ability to plan, manage and execute detailed timelines and documentation • Ability to work collaboratively with colleagues and staff for a conducive team- oriented environment • Ability to build and maintain interpersonal relationships, to work independently or as a team • Maintain constructive and cooperative working relationships with others over time • Ability to receive and give constructive feedback in an appropriate and professional manner
Complex Problem Solving	• Strong analytical and problem-solving skills to address complex geospatial issues • Ability to recognize and identify problems with tasks and bring problems appropriately to supervisors and management • Demonstrated ability to recommend potential solutions for implementation • Problem solving skills, strong interpersonal skills and overall understanding of RedZone business

Essential Functions

Check One	Supervision
√	No Supervisory Responsibility
☐	Team Leader (does not hire/fire or conduct PFP)
☐	Supervisor – Supervises small crew
☐	Manager
☐	Director and above

Check One	Direction
☐	Works independently
√	Under general guidance
☐	Under frequent direct guidance

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Physical & Work Environment Requirements

This section covers any Americans with Disabilities Act requirements to perform the job. If the job requires lifting, bending, working with various equipment (including office) or any other physical demands, it should be noted in this section.

General Working Hours/Shift

Hours of Work per Day: 8   Shifts: 1

Environments consisting of:

- Office environments
- Percent of time indoors – 98%
- Percent of time outdoors – 2%

Work activity consisting of:

- Work on average 8 hours, on average 5 days/week
- Work with others
- Work alone
- Stand up to 1 hour – on average 1 hour
- Sit up to 8 hours – on average 7 hours
- Lift up to 15 lbs.
- Use of hands for basic hand and power tools and handheld computer and telephone equipment

Work Materials Used/Protective Equipment Needed

Work Materials Used: Computer, telephone

Work postures consisting of:

- Lifting
- Sitting
- Standing
- Walking
- Bending
- Carrying
- Pushing
- Pulling
- Crouching
- Driving
- Climbing
- Kneeling
- Reaching
- Speaking
- Hearing
- Seeing

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Physical Requirements

Lifting		**Occasionally (1-33%)**	Balancing		**Not Applicable**
Sitting		**Constantly (67-100%)**	Driving		**Occasionally (1-33%)**
Standing		**Occasionally (1-33%)**	Crawling		**Not Applicable**
Walking		**Occasionally (1-33%)**	Climbing		**Occasionally (1-33%)**
Bending		**Occasionally (1-33%)**	Kneeling		**Occasionally (1-33%)**
Carry		**Occasionally (1-33%)**	Reaching		**Occasionally (1-33%)**
Pushing		**Occasionally (1-33%)**	Speaking		**Frequently (34-66%)**
Pulling		**Occasionally (1-33%)**	Hearing		**Frequently (34-66%)**
Crouching		**Occasionally (1-33%)**	Seeing		**Constantly (67-100%)**

Physical Tasks

Task Description	Typical Weight	Maximum Weight	Typical Distance	Frequency
Personal luggage	10 lbs.		Up to 50 yards	Rarely
Materials and Information	10 lbs.		Up to 50 yards	Occasionally
Laptop	4 lbs.		Up to 50 yards	Frequently

Travel Requirements

Overall frequency of travel: Less than 10%

Local travel (driving): **Less than 10%**

In-country travel (flying): **Less than 10%**

International (flying): **Less than 10%**