

# GIS Programming Intern

## General Duties:

The GIS Programming Intern is responsible for developing software related to Geographic Information Systems. The GIS Programming Intern works with Planning and Community Development (PCD) staff to develop GIS tools for planning applications. The GIS Programming Intern provides technical and GIS/Spatial/Mapping programming support for projects. This position works collaboratively with PCD staff to analyze requirements, identify software solutions/platforms, and develop custom web and desktop tools and applications to support planning projects.

## Specific Duties and Responsibilities:

- Develop algorithms and plug-ins for GIS software
- Create scripts to manage and transform spatial data
- Write documentation for developers and end-users
- Support/train staff in the use, extension, and customization of GIS software and tools
- Collaborate on database design and implementation

## Required Knowledge, Skills, Characteristics and Abilities:

- At least three years of progress toward a bachelor's degree in GIS, Computer Science, or a related field (at least one year of progress toward a master's degree preferred)
- Intermediate Python programming skills, including object-oriented programming
- Familiarity with spatial data formats and GIS software
- Excellent verbal and written communication skills
- Familiarity with open source GIS tools, including QGIS and PostGIS
- Experience with web-based mapping platforms

## Essential Functions:

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Sit or stand for long periods of time to review, input, and analyze data



- Lift and carry equipment necessary to complete work, approximately 20 pounds
- Effectively analyze data and numeric values necessary for completing projects
- Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and the ability to adjust focus
- Ability to effectively communicate with coworkers and stakeholders
- Effectively maintain computer systems, spreadsheets, files, and reports necessary to support the goals of the organization

### **Competencies:**

- Interpersonal Skills
- Motivation to Succeed
- Problem Solving/Analysis
- Communication Proficiency
- Decision Making
- Ethical Conduct
- Time Management
- Advance level knowledge of computer programming, spreadsheets, databases, and report generating

### **Work Environment:**

- Office work will be performed in an open cubicle environment sometimes involving distractions.
- Frequent near-vision use for reading and computer work

### **Disclaimer:**

The job description is not designed to cover or contain a comprehensive listing of activities, duties, or responsibilities that are required of the employee. The description contains examples of duties and responsibilities that may or may not be considered "essential functions" to a particular job or position within this job class. "Essential functions" are to be determined at the position or job level within each department. Other duties, responsibilities, and activities may change or be assigned at any time with or without notice.