Pacific States Marine Fisheries Commission Job Announcement

Job Title: IT-Applications Software Specialist- BIOS ArcMap Extension Programming  
Job Number: 12-155  
Closing Date: 4/5/2012  
Salary: $61,451- $72,800 DOE  
Position Type: Full-Time, Regular  
Duty Location: GIS Unit in Sacramento, CA  
How to Apply: Create a profile and attach your resume online at www.psmfc.org

Project Overview:  
This position is a full-time position filled by Pacific States Marine Fisheries Commission, located and working for the GIS Unit in the Biogeographic Data Branch of the California Department of Fish and Game (DFG) in downtown Sacramento, CA. The primary role of this position is to assist DFG staff in their development of tools and extensions for ESRI's ArcMap software (v10). This will include creating tools for special editing functions as well as special analysis functions, working with internal end users to clarify the functional needs and usability, and more.

Essential Functions:

- Create and manage ArcMap desktop tool extensions to replace existing AML tools. The tools will be created for an internal group of data development scientists who work with ArcMap daily. This will include requirements analysis, developing code, testing, debugging, documenting and the creation of an end-user manual.
- Migrate the spatial data used by this group to a geodatabase structure. Research and recommend appropriate ESRI data format based on the existing needs and processes in place.
- Further refine and analyze technical and functional process and best practices documents for this groups data development and applications. Assure they are consistent with current and planned infrastructure and data environments.

Minimum Qualification Requirements:

Candidates must present one year of Specialized Experience** which demonstrates:

- Knowledge of the customary approaches, techniques, and requirements appropriate to GIS analysis and mapping, as well as custom GIS desktop tool design and development;
- Knowledge of planning sequences necessary to accomplish assignments where this entails coordination with others outside the organizational unit; and
- Adaptation of guidelines or precedents to the needs of the assignment.

The Specialized Experience must equip the candidate with the particular knowledge, skills, and abilities to perform successfully the duties of the position, and is typically in or related to the work of the position to be filled. To be
credible, the Specialized Experience must have been equivalent to at least the next lower level in the normal line of progression position.

**Knowledge Required by the Position:**

At the lower end of the range, the employee has broad knowledge, abilities, and skills as follows:

- Knowledge of developing custom tools in ArcMap.
- Ability to analyze, design, test, and implement complex applications.
- Knowledge of Visual C#.NET and Python programming languages and techniques.
- Knowledge of GIS data types.
- Knowledge of relational database management systems and structured query language.
- Knowledge of effective technical writing techniques.
- Ability to communicate clearly and effectively, both orally and in writing.
- Ability to interact and deal effectively with individuals and groups having diverse backgrounds (biologists, engineers, statisticians, economists, fiscal specialists, computer specialists, etc.) to translate their needs to software functionality.

At the upper end of the range, the employee uses mastery-level knowledge and abilities to develop state-of-the-art technology and functionality.

**Additional Mandatory Skills:**

- Experience designing and testing desktop mapping tools in ArcMap
- Programming experience in .NET or Python
- Experience creating Stored Procedures in SQL Server 2008
- Experience working with GIS data types
- Working knowledge of enterprise hardware and software
- Good communication and problem solving skills

**Additional Desirable Skills:**

- Experience with the MS Visual Studio .NET development environment
- Programming experience in C#.NET and VB.NET
- Experience working with ArcObjects
- Experience working in MS Access
- Experience working on user interface design
- Knowledge of DFG policies, procedures, and strategic objectives

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