

Derek J. McNamara
Senior GIS/Remote Sensing Analyst

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OBJECTIVE

Utilize my extensive skills in geomatics, application development, and information systems to meet and exceed the business needs of my clients.

SUMMARY

Over ten years experience designing/managing relational database systems, developing custom applications, performing analysis of spatial and non-spatial data, performing image analysis, and utilizing geospatial technologies.

Proficient in Visual Basic, .NET, ArcObjects, Python, Active Server Pages (ASP), SQL, T-SQL, Avenue, Arc Macro Language (AML), and HTML. Experience in C/C++/C#, SGML, XML, Javascript, IDL, and Fortran. Extensive knowledge and skills in relational database design and management using MS Access and SQL Server 2000. Experience developing web applications to deliver spatial data.

Experience in a variety of geographic information system (GIS) platforms including ESRI, Idrisi, ERDAS, ArcPad, ENVI, and Trimble Pathfinder. Extensive experience in the use of Global Position Systems and ArcPad. Expert knowledge of cartographic principles, GIS data set documentation, and application documentation. Expert knowledge of image and Light Detection and Ranging (LiDAR) processing. Expert knowledge of spatial and non-spatial statistics. Experience in using ESRI SDE and ArcServer Technology.

WORK/CLIENT HISTORY

McNamara Consulting Inc., Coeur d'Alene, ID

03/2007 – Present

Senior GIS/Remote Sensing Analyst

- Managed GIS/Remote Sensing/Application Development projects; developed proposals, quality assurance documents, and final reports; determined budgets; supervised staff.
- Developed and managed complex geospatial databases used for storing watershed assessment data; documented database designs in MS Visio; documented spatial data using FGDC metadata standard.
- Developed tools to automate entry, analysis, and quality control of Cumulative Watershed Effects (CWE) data stored in ESRI geodatabases using python and VBA.
- Developed complex computational geometry and spatial analysis algorithms to extract features from LIDAR data. Developed test applications to perform feature extraction of LIDAR data using VB.NET.
- Performed spatial analysis for hydrologic and real estate applications using ArcGIS.

Coeur d'Alene Tribe, Plummer, ID

09/2005 – 09/2008

Remote Sensing/Developer Analyst

- Managed GIS/Remote Sensing/Application Development projects: performed requirements analysis; determined budgets; supervised staff.
- Processed raw Light Detection and Ranging (LiDAR) data into various formats to derive building footprints, tree stem locations, canopy height, and canopy cover. Developed algorithms and applications for extraction of features.
- Developed GIS applications using VB.NET, ADO.NET, and ArcObjects to automate and facilitate data editing, data creation, and spatial analysis.

- Presented work at numerous conferences and meetings. Served as department expert in geospatial technologies.

Idaho Department of Lands, Coeur d'Alene, ID

02/2003 – 8/2005

GIS Analyst/Senior GIS Analyst

- Managed GIS projects: performed requirements analysis for projects, set objectives and work plans for projects, supervised one staff.
- Developed enterprise applications using Avenue, C++, and SQL Server 2000 for tracking management activities. Performed requirements analysis and application design. Created DLLs in C++ for custom SQL Server Extended Stored Procedures. Documented applications for users and developers.
- Developed MS Access database for Insect Tracking and Monitoring. Developed application using VBA and ArcObjects to update, query, and display Insect tracking and monitoring information in ArcMap.
- Developed and managed MS Access relational database for the Cumulative Watershed Effects (CWE) Program. Created custom programs to enter, analyze and disseminate data using Avenue and VBA.
- Created metadata and cartographic productions for reports and presentations.
- Served as department expert in geospatial technologies; worked with multidisciplinary staff to develop, analyze, and document spatial data.

Montana State University, Bozeman, MT

06/2001 – 10/2002

Research Assistant

- Developed MS Access relational database of agricultural data. Created link between MS Access and ArcView to automate transfer of agricultural data and incorporation into a crop growth model.
- Analyzed remotely sensed data, using regression analysis, to derive parameters for a crop growth model. Performed atmospheric corrections on remotely sensed data and converted data to reflectance using ERDAS Imagine. Automated data analysis and wrote report documenting findings.
- Conducted ERDAS Imagine training workshop. Assisted in teaching Remote Sensing and Image Processing class. Served as geospatial expert within and across departments.

National Gap Analysis Program

01/2000 – 05/2001

GIS Technician

- Developed MS Access database of National Gap Analysis Program data; developed applications to enter, view and analyze data holdings.
- Developed web applications to view and download data from database.
- Created and maintained clearinghouse node to search Gap Analysis data.

United States Forest Service, McCall, ID

Seasonal: 03/1996 – 09/1999

Fisheries/Hydrologic Technician

- Supervised crew of five people; Organized and oversaw field data collection; Wrote reports summarizing findings of data collection activities.
- Utilized ArcInfo to upload GPS data to ArcInfo coverages; created and edited coverages using ArcInfo; created cartographic productions in ArcView.

EDUCATION

- B.S. Forestry and Wildlife, Virginia Polytechnic Institute and State University at Blacksburg, VA July 1995.
- GIS Certificate, University of Idaho at Moscow, Idaho 2006.

References available upon request.

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