Erich Seamon

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Geographic Information Systems (GIS) analyst and developer, with 20 years of experience with government agencies, utility districts, and academia. Possess an M.S. in the Geosciences/GIS, certified as a project manager (PMP) and GIS professional (GISP). Extensive experience with ArcGIS Desktop, ArcGIS Server, geodatabase development, work order management systems, python, Javascript, HTML5, PHP and PERL. Looking to leverage my geospatial and data science knowledge and experience for a successful organization.

PROFESSIONAL EXPERIENCE

University of Idaho
Environmental Data Manager, December 2011 – March 2018

- Worked as a Senior Environmental Data Manager for a USDA/NIFA funded $20 million Coordinated Agricultural Project (CAP). Implemented ArcGIS Server systems and RESTful interfaces, using python and R. Application development services that consume and expose JSON via RESTful systems (http://reacchpna.org).

- Developed GIS based technical systems, including geodatabase design and maintenance, construction of data dashboards and analytical GIS tools (python). Constructed and personally maintained on Unix/Linux systems for University of Idaho's Northwest Knowledge Network (http://northwestknowledge.net).

- Development platforms used included python, PHP, Javascript, HTML5, and associated ArcGIS SDKs (ArcGIS Server, Arc Collector). Personally built all REACCHPNA systems, from systems design and administration, software implementation and maintenance, to application development and deployment.

- Developed extract/transform/load functions to pull data from a multitude of datasets and databases, as well as construction metadata standards tools for data ingestion into ESRI geoportal software (ISO 19115). Used FME as part of this process.

- Supervised four direct reports over the course of five years, supporting over two hundred individuals on the team. Provided regular status/progress reports on data management and GIS efforts to Project Director (Dr. Sanford Eigenbrode).

- Prepared presentations and training workshops for teams related to GIS and data management, with a focus on ArcGIS, ArcGIS Online, and python.

- Deployed web services to ArcGIS Online for easy access by users who were not familiar with GIS technology.

Erich Seamon and Associates, LLC
GIS Project Manager, November 2005 – February 2011

- Applied the use of advanced technology systems to make organizations successful, including Enterprise GIS development, GIS assessment and strategic planning, governmental systems architectural and life/cycle business development, water utility systems development.

- Developed ESRI based applications in ArcGIS, ArcGIS Server, and Arc Collector, using python, for City of New Orleans, City of Portland, and City of Pittsburgh.

City and County of San Francisco, CA
Senior GIS Project Manager, December 2000 – November 2005

- Managed over $20 million annually in services for multiple business and technology systems, including Enterprise GIS, public utilities commission, public works, property/real estate analysis (Assessor/Recorder), and tax collection (Treasurer/Tax Collector).

- Developed and implemented San Francisco's first Enterprise GIS architecture using ESRI/ArcGIS software, consisting of ArcGIS Server, ArcIMS and ArcGIS geodatabase schemas for DB2.

- Designed and deployed a multitude of GIS systems, including: SF police CrimeMAPS system (ArcGIS/Citrix system with active-passive servers using DB2 and storage area networks), Assessor parcel management ArcIMS applications, Real estate GIS web services, and PUC/DPW street maintenance GIS applications.

- Provided regular presentations and status reports of GIS efforts to city agency heads, Mayors office, and other elected officials. Wrote technical documentation and strategic planning in support of developed systems.

- Worked with legal staff to initiate enterprise GIS software agreements with ESRI, IBM, and Oracle, reducing overall costs for CCSF by 1.1 million thru software licensing efficiency.

- Supervised twenty staff, including GIS programmers, analysts, and developers. Regularly worked with developers to assist and mentor project work, from coding to systems integration.

Marin Municipal Water District. Corte Madera, CA.
Senior GIS Analyst, May 1997 – December 2000

- Developed infrastructure and water utility GIS systems on Linux and Unix. Developed web services using ArcGIS Desktop, ArcGIS Server, and AutoCAD.

- Managed a team of seven data technicians to convert over 1200 miles of water utility infrastructure to a digital format, with water utility attribute content integrated in a ESRI geodatabase format (over the course of three years). Integrated GIS services with Maximo work order management systems.

- Coordinated pushing water infrastructure GIS content to internet and intranet services for access by constituents and internal team techs and engineers.

- Served as the project manager for natural resource GIS development. Including coordinating and developing all GIS applications as they related to projects such as fire modeling, sediment streambed monitoring, soil erosion analysis, and watershed modeling.

- Implemented project planning, scope management, and oversight of GIS team development work.

Northern Kentucky Area Planning Commission. Cincinnati/Northern KY Metro area.
Senior Applications Analyst, August 1993 – October 1996

- Managed GIS systems in support of the Commission's role as the primary planning organization for the tri-county area (Ohio/Kentucky/Indiana).

- Developed applications in ARC/INFO, Dbase, Foxpro, supporting services for Kenton County Public Works, Boone County, Kenton County, KY.

- Developed GIS applications in soil erosion, runoff predictability/watershed modeling, and parcel land use management.

E D U C A T I O N

University of Idaho, Moscow, ID
Ph.D. (in process). GIS and Natural Resources

Bowling Green State University, Bowling Green, OH
M.S. – Geosciences

Wittenberg University, Springfield, OH
B.A. – Geosciences, with GIS focus.

C E R T I F I C A T I O N S   A N D   A W A R D S

- Certified Project Management Professional (PMP)
- Certified Geographic Information Systems Professional (GISP)
- Certified Information Technology Infrastructure (ITIL) Foundation Certified
- Certified GIS Expert in US Federal Court (Willits vs. City of Los Angeles)

T E C H N O L O G Y ,   C O L L A B O R A T I O N   &   L E A D E R S H I P

Scientific Research

- Led large data consolidations for both academic and governmental entities in the last five years (2013-2018) (www.reacchpna.org, www.pnwcirc.org).

- Led data management efforts around agriculture and data science using python, R, and tensorflow. Apache Spark, MapReduce, Tomcat.

- Regularly perform Linux/Unix administration/systems programming (bash). Actively have several personal servers running Apache, Tomcat, MongoDB, python.

- Organize training and workshop efforts for data management and GIS for teams as large as 40.

- Led Python-focused scientific discovery sessions for students involved in ecological and agricultural research at the University of Idaho.

Project Management Experience

- Led technology project teams for academic, private sector, and government. Developed and implemented the City of San Francisco's first Enterprise GIS program across 65 city agencies. PMP and GISP certified.

- Strong presenter and conveyor of technology outcomes to both leadership and customers. Presented GIS technology topics for private firms as well as many conferences (ESRI, GITA, URISA, AGU).

Private Sector and Governmental Leadership

- Served as Liaison between Marin Municipal Water District and the Marin Telecommunications Agency, coordinating GIS infrastructure integration between 21 cities in Marin County, CA. Co-developed a Joint Powers Authority (MarinMAP) for this data sharing process.

- Experienced in Agile, Waterfall and Scrum methodologies. Lead project manager for the City of Pittsburgh's GIS E-911 street address data development (2009).

- Worked as a consultant with CIBER, Inc. to assist the City of New Orleans right after Katrina, traveling to the region to provide GIS expertise for emergency efforts.

- Served as analyst and manager on several long term complex technology projects – including:

  o Fire Modeling at the Marin Municipal Water District, in coordination with Marin County Fire;
  o Parcel/Service Meter relationship development with City and County of San Francisco;
  o Erosion and sedimentation modeling for the Mill Valley Watershed;
  o Parcel and utility management for Marin Municipal Water District and City and County of San Francisco
  o Technology cost management, budget management for City and County of San Francisco

P R O G R A M M I N G & D E V E L O P M E N T

Programming and Development

- Experienced with all forms of Geographic Information Systems (GIS) software, including ArcGIS Desktop, ArcGIS Server, ArcSDE, ERDAS, GRASS, QGIS, MapInfo, MapReduce.

- Extensive programming experience in R and Python. Well versed in parallel processing libraries for python and R (Gdal, GEOS, Maptools, spplot/ggplot, caret, dplyr).

- Database experience: Well versed in database structures and SQL scripting using PostgresQL, Oracle, DB2, SQL Server, MySQL, MongoDB. Strong database development and modeling, as well as UML design experience in Visio. Applied geoDB experience in an ESRI environment (ArcGIS desktop connections, deployment integrated with ArcGIS Server).

- Have performed extensive GIS analyses in both desktop and server-based environments. Experienced with map projections, coordinate systems, spatial statistics, georeferencing, and geo-metadata development.

- Good understanding of security and deployment protocols for publically-facing GIS web services, at an application and systems/networking level. SELinux experience.

- Experienced with Apache and Tomcat server deployments, Java/Javascript, PERL. Developed a Java-based ESRI Geoportal Server for GIS data management on Linux for 300+ users (Linux)

- UNIX and Linux administrator experience – very knowledgeable in shell scripting, web configuration, SSH.

- Experienced in geospatial data mining with regards to large data clouds – and providing analytical perspectives (report, presentation, data model review, etc.).

- Taught Introduction to Geospatial Analysis for Natural Resource Management, Forestry 375, University of Idaho. Spring 2016. 70 students, one teaching assistant.