Erich Seamon

University of Idaho
1315 Franklin Road
Moscow, ID 83843
erichs@uidaho.edu
http://erich.io personal

Goals

As a GIS analyst, project manager and IT specialist, I am interested in applying my background and experience for employment with progressive private sector and governmental agencies.

Education

(In Progress) Ph.D. – Natural Resources, University of Idaho, Department of Forest, Rangeland, and Fire Sciences.

M.S. – Geosciences. Bowling Green State University, Bowling Green, OH. Thesis: "A GIS Model to Calculate Sediment Yields from a Small Rural Watershed, Old Woman Creek, Erie and Huron Counties, Ohio." 1994. Advisor: Dr. James E. Evans

B.A. – Geosciences. Wittenberg University, Springfield, OH.

Certifications and Awards

-Ohio Journal of Science Paper of the Year Award, 1997. (Ohio Journal of Science vol. 97 (3): 44-52, 1997)

-Project Management Professional (PMP) 2008 - Present

-Geographic Information Systems Professional (GISP) 2007 - Present

-Information Technology Infrastructure (ITIL) Foundation Certified 2008 - Present

Professional Experience

12/2011 – 03/2017– Environmental Data Manager – University of Idaho. Currently working on a USDA/NIFA funded $20M Coordinated Agricultural Project (CAP) that is working to improve the long-term profitability of cereal production systems in the Pacific Northwest, under ongoing and projected climate change. A core focus is developing technical systems and data architectures to integrate varying systems (modeling, emissions analysis, cropping systems, biotics, and hydrology) for data analysis, management and review. Areas of effort include: Interactive Python development, NetCDF subsetting and aggregation for climatic model data examination, javascript web server development, geospatial database development, and metadata/data catalog development for natural resource-based data. You may review more information at www.reacchpna.org.

01/2015-06/2016 – Instructor, Department of Forest, Rangeland, and Fire Sciences, College of Natural Resources, University of Idaho. Taught 300 level GIS class (75 students) which introduced projections and coordinate systems, gps, scale and orientation, as well as hands on lab experience with spatial analysis and map creation. Used responsive systems for real time feedback from students with cell phones and laptops, as well as to ask questions at the end of lectures to affirm learning levels. Class had a three section lab, with one teaching assistant. http://erich.io

11/2005 – Present. Principal, Erich Seamon and Associates. ESA's focus is on applying the use of advanced technology systems to make organizations successful – in multiple capacities. Core areas of focus include; Enterprise GIS development, GIS assessment and strategic planning, governmental systems architectural and life/cycle business development, water utility systems development, management, and assessment. Recent areas of effort include social services analysis and GIS (Portland, OR), enterprise GIS assessment (New Orleans – City of New Orleans, LA), and political campaign mapping for state and national party efforts. Additionally provide expert witness and geospatial forensics services (www.erichseamon.com)

12/2000 – 11/2005. Geographic Information Officer, City & County of San Francisco. San Francisco, CA. As a senior technology analyst and manager for San Francisco, my role was to manage and serve as technical lead and senior manager for several business systems. Specific examples of such work include capital improvement (PUC, DPW), property/real estate analysis (Assessor/Recorder), integration of tax information with spatial data (Treasurer/Tax Collector), as well as close work with many city departments (Parks & Recreation, Police, Fire, Emergency Services, Municipal Railway, etc.) in the areas of technology procurement, resource management, systems evaluation, and inventory analysis. As CCSF's Geographic Information Officer, I developed and implemented SF's first Enterprise GIS, using common geospatial methods to disseminate information.

5/1997 – 12/2000 Senior GIS Analyst, Marin Municipal Water District. Corte Madera, CA. As the senior analyst and manager of GIS activities at Marin County's primary water utility, my focus was on several areas including development and management of MMWD's advanced infrastructure, and oversight of MMWD's technical architecture. I also serve as the coordinator for all natural resource GIS development.

01/1997 - 04/1997 Senior Analyst, Jacobs Engineering Group, Sacramento, CA. As an environmental analyst, my main duties were to manage several advanced Oracle databases, as well as to utilize UNIX systems to develop modeling processes regarding groundwater and surficial contaminant analysis. Additionally, I collected field data regarding groundwater and surficial sampling methods, and incorporated this data into working hydrological models.

08/1993 - 10/1996 Senior Applications Analyst, Northern Kentucky Area Planning Commission. Cincinnati/Northern KY Metro area. Activities included technology work in support of the Commission's role as the primary planning organization for the tri-county area. Specific applications developed were in ArcGIS. Projects ranged from soil erosion and runoff predictability/watershed modeling to parcel management. Daily activities included system administration, internal model planning and conceptual development, essential geospatial data manipulation, map and poster production and scripting. NKAPC was awarded ESRI's Outstanding Government in GIS award.

Select Consultancy and Expert Witness Testimony

Expert Witness – Willits vs. City of Los Angeles – 2013. Provided data mining and geospatial technology analysis for a class action lawsuit related to the Americans with Disabilities Act (ADA). Settlement reached in case 2015 - 1.4 billion to plaintiffs - largest disability class action lawsuit settlement in U.S. History.

Expert Witness – Piper vs. RGIS – 2009. Provided data mining/geospatial technology analysis for a nationwide class action lawsuit related to employment discrimination.

Relevant Coursework

Geomorphology	Computational Data Analysis
Surficial Hydrology	Analytics and Machine Learning
Geographic Info. Systems	Stratigraphy
Groundwater Hydrology	Scanning Electron Microscopy
Inorganic Geochemistry	Petrology
Sedimentary Structures	Multivariate Analysis
Sedimentology	
Advanced Structural Geology	
Geology Field Course	

Research Collaboration & Leadership

-Have participated in efforts involving large data consolidations for both academic and governmental entities in the last five years (www.reacchpna.org, www.pnwcirc.org)

-Led data management efforts around agriculture and data science

-organized training and workshop efforts for data management

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

Private Sector and Governmental Leadership

-Provided technology leadership for multiple government organizations in relation to GIS (City and County of San Francisco, Marin Municipal Water District, NKAPC).

-Supported 61 city departments with San Francisco (employee base of 25,000) with Enterprise GIS services (http://www.sfgov.org/gis).

-Extensive project management experience with GIS focused projects, +20M

-Served as analyst and manager on several long term complex technology projects – including:
- Fire Modeling, in coordination with Marin County Fire;
- Parcel/Service Meter relationship development;
- Erosion and sedimentation modeling for the Mill Valley Watershed;
- Parcel and Public works technology application development;

Scientific Experience and Skills

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

-Extensive programming experience in R and Python. Well versed in parallel processing libraries for python and R.

-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 (Visio).

-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.

-Experienced with Apache and Tomcat server technology, Java/Javascript, PERL.

-UNIX and Linux administrator experience – very knowledgeable in shell scripting, and typical UNIX interaction. I was previously certified as a UNIX systems administrator.

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

-Experienced in the day to day management and quality control of technology systems, including data management, help desk management, backup, disaster recovery/business continuity, code management, and system/application security. ITILF certified.

Classes Taught

Introduction to Geospatial Analysis for Natural Resource Management, Forestry 375. Spring 2016

Recent Publications

Gartstein, M.A., L. Lengua, E. Seamon, 2017. "Parenting behaviors moderate biological and community risk for obesity: Contributions of warmth, limit setting and scaffolding in the preschool period" Parenting: Science and Practice (submitted)

Gartstein, M.A., L. Lengua, E. Seamon, 2016. "Community Crime Exposure and Risk for Obesity: Examining Child Hypothalamic–Pituitary–Adrenal (HPA)-Axis Response as a Moderator." Journal of Child Psychology and Psychiatry (submitted)

Gartstein, M.A., E. Seamon, 2016. "Latent Profile and Cluster Analysis of Infant Temperament: Comparisons across Person-Centered Approaches" Developmental Psychology (submitted)

Gartstein, M.A., E. Seamon, T.J. Dishion, 2013. "Geospatial Ecology of Adolescent Problem Behavior: Contributions of Community Factors and Parental Monitoring." Journal of Community Psychology, April 2014. DOI:10.1002/jcop.21610

E. Seamon 2000 "Water Management in Marin County, CA; Development and Implementation of a Complex Water Utility GIS to Manage Both Infrastructure and Natural Resources." 2000 Environmental Systems Research Institute (ESRI) Conference Proceedings, San Diego, CA. July, 2000.

J.E. Evans, E. Seamon 1997 "A GIS Model to Calculate Sediment Yields from a Small Rural Watershed, Old Woman Creek, Erie and Huron Counties, Ohio." Ohio Journal of Science vol. 97 (3): 44-52, 1997.

Recent Select Presentations and Posters

Seamon, Erich. Paul Gessler, Edward Flathers, Luke Sheneman. Climatic Data Analysis and Data Management: Regional Approaches to Climate Change for Pacific Northwest Agriculture. University of Idaho GIS Day, Presentation, Idaho Commons, November, 2015.

Seamon, Erich, Paul Gessler, Sanford Eigenbrode, Roger Nelson, Claudio Stockle. REACCHPNA and data management. Presentation, USDA Data Harmonization Workshop, Washington DC, May 2015.

Seamon, Erich. Paul Gessler, Edward Flathers, Luke Sheneman. Climatic Data Analysis and Data Management: Regional Approaches to Climate Change for Pacific Northwest Agriculture. University of Idaho GIS Day, Presentation, Idaho Commons, November, 2015.

Seamon, Erich, Paul Gessler, Edward Flathers, Luke Sheneman. Data Management and Integration for Transdisciplinary Research: REACCHPNA. Arid Cereals International Conference, Minneapolis, MN. Poster, November 2015.

Seamon, E., P. Gessler, E. Flathers, V. Walden, S. Fricke. "Development of an interactive crop growth web service architecture to review and forecast agricultural sustainability". Poster presentation at the American Geophysical Union Fall Meeting, December 2014.

Seamon, E., P. Gessler, S. Fricke. "Using geospatial information for agricultural climate change analysis". Presentation at the 2014 ESRI Users Conference, San Diego, CA, 2014.

Seamon, E., P. Gessler, E. Flathers, L. Sheneman, 2013. "Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA)" Poster, NIFA Climate Science Project Director's Meeting, Gainesville, FLA, Jan. 2014.

Seamon, E., P. Gessler, E. Flathers, L. Sheneman, 2013. "Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA)." Presentation at the American Geophysical Union Fall Meeting, December 2013.

Seamon, E., P. Gessler, E. Flathers, L. Sheneman, 2013. "Climatic Data Integration and Analysis - Regional Approaches to Climate Change for Pacific Northwest Agriculture (REACCH PNA)" Presentation at Pacific Northwest Climate Science Conference, Portland, OR. Sept. 2013.

E. Seamon, P. Gessler, 2012. "Data Management and REACCH: Strategies and

Implementation. University of Idaho" Poster - Annual REACCH CAP Conference, Feb. 2012.

Gartstein, M.A., Dishion, T.J., Seamon, D.E., 2008. "Explaining Neighborhood Correlates of Adolescent Conduct Problems: the Geospatial Perspective." Presentation at the Annual Convention of the Society for Prevention Research, San Francisco, CA, Aug. 2008.

E. Seamon, 2006. ESRI Users conference, 2006. "Understanding Adolescent Behavior with GIS – a case study: Portland, OR." San Diego Convention Center, San Diego, C, Aug. 2006.

E. Seamon, M. Gartstein, T. Dishon, 2006. "Explaining neighborhood correlates of adolescent conduct problems in the Portland, Oregon metropolitan area: the geo-spatial perspective" Santa Fe, NM, April, 2006.

E. Seamon, 2005. "Security, Privacy and GIS: Changing Perspectives in a Changing World" ESRI users conference. San Diego Convention Center, San Diego, CA, July, 2005.

E. Seamon, 2005 "Implementing Enterprise GIS in San Francisco" 2005 American Planning Association National Conference, March 21-25, San Francisco, CA.

E. Seamon 2005 "Managing geographic information nationally: strategies for GIS governance" California GIS conference, Bakersfield, CA March 16-18, 2005.

E. Seamon, 2005. "SF Enterprise GIS: interactions and uses of geospatial databases" Northern California URISA presentation, Sacramento, March 2005.

E. Seamon, 2004. "Building a Successful Enterprise GIS in San Francisco, CA" ESRI Users' Conference 2004 - San Diego, CA, July 2004.

E. Seamon, 2004. "Fighting Crime in the 21st Century: Developing CrimeMAPS, SF's first dynamic crime analysis system" National Institute of Justice (NIJ) Seventh Annual Crime Mapping Conference, Boston, MA, Oct. 2004.

E. Seamon, 2000. "Water Management in Marin County, California: Development and Implementation of a Complex Water Utility GIS to Manage Both Infrastructure and Natural Resources." ESRI Users Conference, July, 2000.

E. Seamon, 1999. "Hydrological Modeling and the use of GIS as a predictive tool in environmental management" Northern Kentucky Area Planning Commission, KY