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Objective To advance human well-being and environmental quality through

information technology.

Education University of Maryland School of Public Policy

College Park, MD

Master of Public Management, December 2008

2008-2009 Ellis E. Meredith Fellow

Concentration: International Political Economy

Topics of study include the convergence of energy, economics, politics, and

security.

University of Virginia Charlottesville, VA

Bachelor of Arts, May 1995

Major: History

Professional Experience

CSRA (formerly SRA, International)
Charlottesville, VA

Lead Analyst, working remotely from Bellingham, Washington

January 2009 to present

Among other projects, I am responsible for working with federal regulatory officials to produce annual reports that compile and explain trends in automotive fuel economy and air pollution. These reports are released to a national audience in the government, industry, and advocacy sectors. My own role spans each project's entire scope, including data extraction, verification, analysis, information design, and final print and online production.

My other projects involve data warehouse development, the analysis of large data sets, and the development of automated analytical tools, particularly using the R statistical analysis environment. I am particularly interested in sharing knowledge of analytical tools and methods with my colleagues, and have presented tutorials on the subject.

In addition to R, I use Oracle PL/SQL, Java, Python, and JavaScript.

Marshall Miller & Associates

Bluefield, VA

Geographic Information Systems (GIS) Project Manager

November 1998 to August 2007

As the lead geospatial technology specialist for a diversified energy and environmental consulting firm, I managed projects for both private- and public sector clients and developed GIS applications to support geology, engineering, and environmental projects. I also:

Professional Experience, Continued

Revised regulatory flood hazard maps for West Virginia communities

Evaluated the methane gas content of coal deposits in China

Reported and contested tax liability on mineral reserves owned by coal mining

companies

Modeled the capacity for carbon storage in Appalachian coal seams for the Southeastern Regional Carbon Sequestration Partnership (SECARB)

Engaged in extensive international business development, writing proposals for a

large-scale mine safety study in China and prospective energy projects in

Kazakhstan, the Czech Republic, Ukraine, and other nations

Virginia Department of Transportation Charlottesville, VA

Assistant to the Director of the GIS Lead Unit, March 1998 to May 1998 I suggested prototype GIS applications and promoted GIS within VDOT.

Probe, Inc

Charlottesville, VA

Graphic Designer and Network Administrator, March 1996 to May 1998

Travel and Language

Academic training in Spanish; German proficiency, including scholarship study in Germany during high school.

I represented my firm at the 2005 China Coal Show, held in Beijing.

Papers and

"Geologic Modeling for Highway Construction in ArcGIS," 2004 ESRI User Conference, San Diego, California. This presentation describes an approach **Presentations** to modeling stratigraphic geology from sparse drill hole data.

> "Flood Mapping Opportunities," a presentation given to several state and regional GIS conferences since 2001, outlining the ways local organizations can become involved in flood hazard map improvements through FEMA.

"Stop Clicking, Start Typing," an introduction to automated data analysis presented to my colleagues along with a sample data set and guided tutorial.

"Coal Retirement Plan," an environmental policy proposal I composed and shared online. It was profiled by *The Atlantic* in October 2015.

Additional Interests

Online publishing and communication technology:

I have designed and maintained websites for my churches, a small-town cemetery, a Montessori preschool, an online journal of politics and culture, and other personal sites. Links are available upon request.

As a recent transplant to the Pacific coast, I enjoy all the outdoor recreation that the Northwestern US and British Columbia offer. I am the father of five.