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#### Objective

To improve human well-being by solving problems with 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.

# 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:

Revised regulatory flood hazard maps for West Virginia communities Evaluated the methane gas content of coal deposits in China

#### Professional Experience, Continued

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.

Further interests and activities include raising five children, observing Orthodox Christianity, and training in Brazilian Jiu-Jitsu, though not concurrently.