

# David W. Fanning

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## Summary of Accomplishments

A passion for the physical and natural sciences, a love of writing and teaching, and a strong entrepreneurial mind-set have combined to create an accomplished career in communicating technical information and support to the widest possible audience.

## Professional Experience

### **Fanning Software Consulting, Inc. (1997 - 2014)**

#### **Owner and President**

- Worldwide IDL consulting, training, and programming business. (IDL is used by scientists and engineers in the physical and natural sciences to analyze large data sets.)
- Programming clients include: the Air Force Meteorological Branch, Max-Planck Institute of Meteorology, CSIRO Forest Products Division, Australian Bureau of Meteorology, Johnson & Johnson Consumer Products Division, Shell Research and Exploration, Segami Corporation, Sunnybrook and Women's Hospital, Sandia National Laboratory, European Southern Observatory, Hofstra and Stanford Universities, GSF-Forschungszentrum (Munich), and the Royal Observatory, Edinburgh
- Author of *IDL Programming Techniques, 2nd Edition* (ISBN 096623832X), the most popular book in the world (based on sales) for learning the IDL language
- Author of *Coyote's Guide to Traditional IDL Graphics* (ISBN 9780966238358)
- Teach beginning, intermediate, and advanced IDL courses worldwide, including in Norway, England, Denmark, Germany, Spain, Japan, Australia, Canada, and the United States.
- Develop, write, and maintain *Coyote's Guide to IDL Programming* web page, the leading web site (<http://www.idlcoyote.com>) for IDL programmers and application developers
- Recognized expert in the IDL programming and newsgroup community
- Specialize in writing interactive and object-oriented IDL applications and programs
- Develop and maintain two IDL libraries: The *Coyote Library*, one of the most popular and frequently downloaded libraries in the IDL community, and the *Catalyst Library*, an object-oriented framework for building IDL applications

### **Warner College of Natural Resources (2011-2013)**

#### **Colorado State University, Science Programmer**

- Develop software algorithms in conjunction with USFS project to remove clouds from Landsat MSS and TM images in tropical areas
- Develop set of automated IDL tools for calculating forest age of Landsat scenes
- Algorithm and tool development related to expected ICESAT-2 lidar data
- Develop tools that work on UNIX, Windows, and Macintosh platforms

### **National Snow and Ice Data Center (2007 - 2010)**

#### **Univ. of Colorado Research Faculty, Science Programmer**

- Provide programming support for staff scientists and data center projects
- Work daily with MODIS, MISR, AVHRR, AMSR-E and other remote-sensing satellite data in support of scientific mapping, visualization and understanding
- Develop tools and applications for more efficient and effective processing of satellite data for the center operations staff and customers

- Develop DataViewer tool that supersedes all other data center tools for reading, mapping, and visualizing all passive microwave data provided by the data center
- Develop the on-line data analysis portion of the SAGE web portal for organizing and visualizing Greenland remote-sensing data
- Develop a number of mapping tools for working with map projected satellite data
- Develop tools that work on UNIX, Windows, and Macintosh platforms

### **Research Systems, Inc. (1993 - 1997)**

#### **Director of Training/Technical Sales Engineer**

- First IDL technical sales engineer hired to answer customer's technical questions
- Initiated and developed the first IDL training department and courses at RSI
- Sold and taught IDL courses, raised training revenues from \$50K to \$450K in 3 years

### **IMSL (1992)**

#### **Independent Consultant**

- Hired to produce video and promotional materials for new IMSL-IDL product
- Developed training course for new IMSL-IDL product

### **Precision Visuals, Inc. (1988-1991)**

#### **Technical Support Engineer**

- On team of five people who turned IDL into the PV-Wave software product
- One year as PV-Wave technical writer
- Three years as technical support engineer, answering PV-Wave (IDL) questions
- Became senior support engineer, responsible for advanced PV-Wave technical questions

### **Environmental Defense Fund (1987)**

#### **Groundwater Specialist**

- Researched groundwater contamination problems in Colorado
- Wrote reports, lobbied government organizations, had public speaking role

### **American Association for the Advancement of Science (1986)**

#### **Mass Media Fellow**

- Produced general interest, 5-7 minute, science programs for KUNC Radio, Greeley, CO

## **Education**

**B.S. in Physics**, Colorado State University, 1981

**Ph.D in Biological Chemistry**, The Pennsylvania State University, 1986

## **Hardware and Software Experience**

- Work daily on both UNIX and Windows computers, including Microsoft editors and book building software. Use Quickbooks accounting software to run business. Use Framemaker software to write and publish books and other promotional literature.
- Expert IDL (Interactive Data Language) programmer. Familiar with ENVI and other GIS software. Familiar with programming languages and scientific software in general.
- Develop and maintain web page and social media presence for two organizations.

## **Activities**

- Member of Board, Trail Maintenance Crew, Poudre Wilderness Volunteers (PWV)
- Editor of PWV Field Guide, and responsible for social media in PWV
- Freelance science and travel writer, published e-book, *Standing on the Ocean*.