

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 to the widest possible audience.

Professional Experience

Fanning Software Consulting, Inc. (1997 - present)

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
- Leader in developing IDL graphical user interface (GUI) programming standards
- 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

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 and in web applications

Research Systems, Inc. (1993 - 1997)**Director of Training**

- 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

Harrisburg Community College (1986)**Adjunct Professor of Physics**

- Taught first-year physics course

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 with map projected satellite image data in a variety of data formats, including raw binary, HDF, netCDF, and GeoTiff
- Expert IDL (Interactive Data Language) programmer. Use ENVI and have written ENVI add-ons in IDL language. Have used R in advanced statistics course. Currently learning Python programming language.

Activities

- Captain, USTA 4.5 tennis team
- Volunteer, USFS, Poudre Wilderness Volunteers and Nordic Rangers
- High-school tennis coach
- Native Plant Master, Larimer County Extension Service