

GEOGRAPHIC INFORMATION SYSTEMS SPECIALIST

Seasoned GIS professional with sixteen years of experience in spatial analysis, modeling, cartography, and 3D visualization. Creative problem solver who tackles challenging projects in innovative and cost-effective ways. Excels at synthesizing complex scientific information into maps, graphics, and animations for clear, concise knowledge transfer. Adept at developing custom scripts and software tools proven to streamline workflows and improve efficiency. Extensive field work experience in remote areas, including GPS data collection, processing and quality control.

AREAS OF EXPERTISE:

- Geospatial Modeling
- LiDAR Processing / Analysis
- GPS Collection / Processing
- Geodatabase Design / Management
- Cartography/Graphic Design
- Multiple-Criteria Decision Analysis
- Cost Distance/Least Cost Path Analysis
- Viewshed / Skyline Analysis
- 3D Visualizations / Animations
- Automation / Scripting in Python

TECHNICAL PROFICIENCIES

Tools: ArcGIS; CommunityViz; ERDAS Imagine; AutoCAD; SketchUp; Google Earth; 3DStudio Max, Adobe Creative Suite; Microsoft ExpressionBlend; Microsoft Office Suite; FlamMap; Hazus-MH; HEC-RAS
Languages: Python, XML, Flex, Visual Basic, Avenue
Networking: LAN/WAN Administration, Novell, SQL, Ethernet
Platforms: Windows 9x/NT/2000/XP/Vista, Linux (Red Hat, CentOS)

PROFESSIONAL EXPERIENCE

TERRACOGNITO GIS SERVICES INC.

Eldora, Colorado

Principal GIS Consultant

2004—Present

Provide decision support, spatial analysis, cartography, and 3D visualization expertise to clients in the U.S., Canada, Europe and Asia. Perform on-site training and consulting. Design, manage, and implement multi-disciplinary projects. Create animations, maps and graphics to make information more accessible. Develop software solutions to streamline workflows. Facilitate meetings and workshops. Present and lecture at conferences. Conduct business development and marketing. Manage company-wide project and expense budgets. Maintain subchapter-S corporation status with state and federal agencies.

Key Achievements:

- Created spatial-temporal models and decision-support frameworks related to various endangered species issues in the American West
- Conducted suitability analyses to locate oil and gas pads, roads, and pipelines in western Colorado
- Provided GIS support to Rio Tinto/Kennecott Copper Mine in Utah
- Conducted regional, long-range energy planning projects in China, India, Netherlands and Canada
- Taught graduate level seminars in advanced GIS at the University of Colorado at Denver
- Founded and continue to run a successful firm for nearly 10 years

COMMUNITYVIZ

Boulder, Colorado

Professional Services Consultant

2002—2004

Provided GIS consulting to clients and staff. Implemented software solutions. Designed, scoped, estimated costs and wrote proposals. Conducted software sales. Created marketing content and materials. Presented at conferences and public meetings. Facilitated client meetings and design charrettes. Provided technical support.

Key Achievements:

- Consistently surpassed revenue targets, retaining more than \$100K/year in contracts
- Managed and executed projects for U.S. Bureau of Land Management, American Rivers, Natural Resources Canada and various municipalities in the U.S. and Canada
- Conducted training for clients and end-users including ESRI Canada, Natural Resources Canada and the Geologic Survey of Canada
- Hosted a live satellite broadcast presenting wildfire fuel reduction strategies to BLM offices across the U.S.

OTAK INC.

Carbondale and Denver, Colorado

GIS Manager

1998—2002

Created and managed a server-based regional GIS database and applied it to planning, design, and conservation projects. Trained clients, end-users and co-workers on GIS software and best practices. Managed office network, hardware/software and peripherals. Created maps and graphics. Presented methods and results in public settings.

Key Achievements:

- Instrumental in developing and implementing GIS data and technology for rural Western Colorado
- Applied cutting-edge methods to facilitate planning, design, and the public process
- Beta-tested *CommunityViz*, an GIS-based decision-support software

UNIVERSITY OF COLORADO

Boulder, Colorado

Geomorphology Research

1995

- Surveyed riverbed topography along a 100-mile stretch of the Colorado River using GPS, sonar and laser surveying technology
- Sampled surface and subsurface sediment distributions
- Processed data for analysis of endangered fish habitat and for
- Analyzed relationships between flow discharge and channel geometry
- Operated motorized raft, survey equipment, and vehicles in rugged environment

UNIVERSITY OF COLORADO

Boulder, Colorado

Biology Research

1994-1995

- Sampled benthic macro-invertebrates over a 20-mile stretch of the Dolores River accessible only by foot
- Identified over 1000 specimens to the genus and species level
- Calculated and mapped species diversity for each sampling site
- Correlated species diversity to various physical and chemical parameters

UNIVERSITY OF COLORADO

Boulder, Colorado

Alpine Hydrology Research

1993-1994

(UROP), University of Colorado, Boulder, CO

- Constructed Subnivean Laboratory at Niwot Ridge, CO
- Collected and analyzed data related to the spatial distribution of snow at Niwot Ridge, CO
- Collected and analyzed meteorological and hydrological data to calibrate a solid precipitation collector at Niwot Ridge, CO
- Skied and worked in extreme weather conditions

LEX IVEY

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COLORADO YULE MARBLE COMPANY

Marble, Colorado

Marble Miner

1990-1994

- Excavated buried tunnel and cleared debris from abandoned subterranean marble quarry
- Designed and built 150-foot emergency stairway required to reopen the quarry
- Operated saws and heavy equipment to extract and transport massive blocks of marble around the world

EDUCATION

Bachelor of Arts in Geography, Environmental Conservation, and *cum laude* in Environmental, Population and Organismic Biology, University of Colorado at Boulder, Colorado, 1995

PUBLICATIONS AND ABSTRACTS

Walsh et al, & Ivey, L. (2000) *Metamorphosis of a High Mountain Stream--Brush Creek Restoration Project, Snowmass Village, Colorado*. Proceedings from the High Altitude Revegetation Workshop No. 14, 248-252. Colorado Water Resources Institute, Colorado State University, March 2000

Ivey, L., *Species Diversity of Benthic Macroinvertebrates Downstream of McPhee Dam, Dolores River, CO*
Undergraduate thesis (Cum Laude) in Environmental, Population and Organismic Biology, University of Colorado at Boulder, May 1995

Ivey, L. et al, *Spatial distribution of snow depth at Niwot Ridge*: UROP Research Team, 1994

Ivey, L. et al, *Calibration of solid precipitation collector, Niwot Ridge*: UROP Research Team, 1993

Visualizing Dam Removal and River Restoration in the Pacific Northwest

International ASPRS Conference, Orlando, FL, November 2010

GIS in the Rockies Conference, Loveland, CO, September 2010

Regional Growth Modeling Using Direct Capture of Stakeholder Preferences

GIS in the Rockies Conference, Loveland, CO, 2010

Southwest GIS Users Group, Moab, UT, 2010

GIS Colorado Annual Meeting, Montrose CO, 2010

Master's Students Seminar on Regional Growth Scenario Modeling

University of Colorado, Denver, CO, spring 2010