

Geoffrey A. Muhlestein

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Summary

- Able to integrate geographic information systems (GIS), spatial and statistical analysis, remote sensing, computer science, and physical science to efficiently and accurately evaluate and solve real world problems
- Experience with the utilization, adaptation, and customization of the current leading GIS software and related applications as a dynamic toolset for problem solving
- Applies contemporary cartographic techniques to the production of dynamic professional maps, illustrations, and animations to clearly illustrate geographic information and research results
- Possesses professional writing and presentation skills needed for the communication of scientific research, procedures, discussion, and results in a clear and concise manner
- Proficient with leading GIS and remote sensing software. Familiar with C++, Visual Basic, Python, SQL, and other programming and scripting languages. Proficient with current MS Office software suites. Comfortable working in Windows, Mac OS, and UNIX operating system environments

Education

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|---|-------------|
| Master of Arts, Geography and Environmental Studies
<i>University of Colorado, Colorado Springs, CO</i>
Related course work: Geographic Information Systems (GIS), Remote Sensing, Geomorphology, Environmental Problems and Solutions | <i>2012</i> |
| Bachelor of Science, Geology
<i>Southern Utah University, Cedar City, UT</i>
Related course work: Stratigraphy, Sedimentology, Petrology, Mineralogy, Paleontology, Weather and Climate, Physics, Chemistry, Calculus | <i>2006</i> |
| GIS Certificate
<i>Geographic Information Systems, Southern Utah University, Cedar City, UT</i>
Related course work: GIS, Remote Sensing, Statistics, Database Management, Programming, GPS Technologies | <i>2006</i> |
| Associate of Science
<i>Dixie State College, St. George, UT</i>
Related course work: General undergraduate coursework | <i>1997</i> |

Career History	<p>GIS Specialist and Staff Scientist, <i>Applied Weather Associates, Monument, CO</i></p> <ul style="list-style-type: none"> • Conceptualize, implement, customize, and document various spatial analysis applications to aide in hydro-meteorological studies. • Production of maps, tables, and illustrations for use in working analysis, proposals, presentations, and final project reports. Assist in data-mining, data management, and report compilation 	2006- Present
	<p>GIS/GPS Instructor, <i>Southern Utah University, Cedar City, UT</i></p> <ul style="list-style-type: none"> • Instructed two sections of the GIS/GPS portion of the Southern Utah University Geology Field Camp • Educated students on general GPS overview, hands-on use of the Trimble GeoExplorer GPS receiver, use of Pathfinder Office software, and use of ArcGIS Desktop software at the introductory level 	2006
	<p>Private Science Tutor, <i>State of Utah, Cedar City, UT</i></p> <ul style="list-style-type: none"> • Assisted a special needs undergraduate student with conceptualization, critical thinking, and problem solving skills in GIS, Programming, Statistics, and Mineralogy curriculum 	2006
	<p>GIS Technician, <i>Utah Geological Survey (Internship through Southern Utah University), Cedar City, UT.</i></p> <ul style="list-style-type: none"> • Used GIS software to digitize and attribute the digital version of the Geologic Map of the Abajo Mountains 1:50,000 scale and Geologic Map of Jordan Narrows 1:24,000 scale 	2004- 2005

Publications and Research

- Muhlestein, G., November 2012: An Evaluation of a GIS Based Application for Estimating Probable Maximum Precipitation over the Piru Creek Basin (Master's Thesis). University of Colorado at Colorado Springs, Dept. of Geography and Environmental Studies.
- Tomlinson, E.M., Kappel, W.D., Parzybok, T.W., Hultstrand, D., Muhlestein, G., June, 2008: Site-Specific Maximum Precipitation Study for the DeForest Lake Drainage Basin, NY
- Tomlinson, E.M., Kappel, W.D., Parzybok, T.W., Hultstrand, D., Muhlestein, G., April, 2008: Site-Specific Maximum Precipitation Study for the Florence Drainage Basin, AZ
- Tomlinson, E.M., Kappel, W.D., Parzybok, T.W., Hultstrand, D., Muhlestein, G., January, 2008: Site-Specific Maximum Precipitation Study for the Magma Drainage Basin, AZ
- GIS and Cartography for map used in: SPAS analysis of Parzybok, T., Hultstrand, D., Rappolt, B., Tomlinson, E., Kappel, W., December 2007: SPAS analysis of Thunderstorm August 4, 2004, Thunderstorm July 14, 2005, and Thunderstorm August 12, 2006, Jimmy Creek Drainage Basin, Colorado Springs, CO
- Muhlestein, G.A., Colberg, M., and Maxwell, D.J., 2006: An Interactive Geologic Map of Cedar City and the Coal Creek Canyon Area, Iron County, Utah. Presented at the Geologic Society of America Conference, May 2006, Gunnison, CO and at the Utah Academy of Science, Ephraim, UT, April 2006
- Witkind, I.J., Cantor, H.G., Griffin, P.C., Tuttle, D.R., Marshall, G.L., 1964: Geologic Map of the Abajo Mountains Area, San Juan County, UT. GIS Compilation in 2006, Project Manager: Grant Willis, Utah Geological Survey. GIS: Geoff Muhlestein, Bryan Anderson, Luke Ambrose, and David J. Maxwell of Southern Utah University. Cartography and additional GIS by J. Buck Ehler, Utah