Ann M.K. Fritz, GISP

Bismarck, North Dakota
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LinkedIn: Ann Fritz

Certified GIS Professional (GISP) with excellent people and organizational skills. Passion for all things geo and working in the public sector. Skilled in ArcMap, geospatial data development, web mapping, cartography, technical writing

Environmental Scientist III

North Dakota Department of Environmental Quality (NDDEQ), Bismarck, ND

- Coordinates all aspects of Geographic Information Systems at the NDDEQ
- NDDEQ's representative to the State GIS Technical Committee
- North Dakota Data Steward of National Watershed Boundary Dataset

Adjunct Instructor – Geographic Information Systems

Bismarck State College, Bismarck, ND

- GIS 107 – Applications in Geographic Information Systems
- Entry level course on practical applications using geographic information system and spatial analysis extension.

Geologist II

North Dakota Geological Survey, Bismarck, ND

- Glacial and surface mapping in eastern North Dakota with special interest in digital mapping techniques
- Editor, *NDGS Newsletter*, quarterly publication of the North Dakota Geological Survey
- Administrator of Geothermal Energy Extraction Regulatory program. Provide assistance to geothermal installers regarding requirements of state regulations
- Developed and led first ever Earth Science Fair for 6th graders during Earth Science Week

Research Assistant

Wisconsin Geological & Natural History Survey, Madison, Wisconsin

- Developed Aquifer Contamination Susceptibility Map of Dane County, Wisconsin using GIS
- Transferring geologic maps to digital format
- Utilizing SURFER for generating groundwater map of a county in Wisconsin

Geologist/Field Technician

Summit EnviroSolutions (contract employee with Unisys Corporation), St. Paul, MN

- Conducted environmental investigations, drilling, installation of remediation systems, monitoring wells
- Completed soil and water sampling for environmental remediation projects
- Compiled and analyzed results for presentation to state and federal regulatory agencies

Awards, Certifications and Membership

- [Bush Foundation Change Network grantee for North Dakota](#), 2018
- Certified GIS Professional by the GIS Certification Institute – Certification Number 00047997
- 2016 Esri and Leica Geosystems Smart Communities Innovation Grant recipient (presented to NDDoH, primary author)
- North Dakota Geographic Alliance member
- URISA member
- North Dakota Department of Health – Leadership Development Program Graduate 2011
- Boy Scouts of America Advanced Leadership Course – Wood Badge for the 21st Century (Graduate of Class C-01-09)
- 2002 Esri Special Achievement in GIS (presented to GIS Technical Committee agencies for collaborative design and implementation of [ND GIS Hub](#))

Education

University of Wisconsin-Madison

Master of Science in Geography - GIS and Web Map Programming (in progress)

University of Wisconsin-Madison

Master of Science in Geology

- M.S. Thesis: Construction of an Aquifer Contamination Susceptibility Map of Dane County, Wisconsin
- American Water Resource Association, WI Chapter- Student Presentation Winner

University of Minnesota-Morris, Morris, MN

Bachelor of Arts; majors in English and Geology

- Scholar of the College Award
- University of Minnesota UROP (Undergraduate Research Opportunity Program) grantee
- Research Experience for Undergraduate Women and Minorities in Science program grantee

Continuing Education Experiences

- ArcGIS Pro: Essential Workflows (24 hour Esri Instructor led training) June 2017
- ArcGIS III: Performing Analysis,(16 hour Esri Instructor led training) April 2015
- ArcGIS Online Subscriptions for Organizations: User Workflows (4 hour instructor led workshop) February 2014
- ArcGIS Online Subscriptions for Organizations: Publisher Workflows (4 hour instructor led workshop) April 2014
- ArcGIS Online Subscriptions for Organizations: Administrator Workflows (4 hour instructor led workshop) April 2014
- Introduction to Geoprocessing Scripts Using Python (10.0), (24 hour Esri instructor led training) October 2012
- Basics of Python, (3 hour Esri Virtual Campus Course) October 2012
- Building Geodatabases I, (24 hour Esri Instructor-led training) June, 2005
- University of Missouri – 1.2 CEUs for having attended the Mid America GIS Consortium Symposium, April 2004

Selected Publications and Presentations

Fritz, Ann M.K., The North Dakota Watershed Boundary Dataset: A GIS Framework Layer (presented at the ND Water Quality Monitoring Conference, Bismarck, ND, February 27-29, 2012)

Fritz, Ann M.K., Coping with Ever Evolving Digital Data: The North Dakota Watershed Boundary Dataset and the US-Canadian Harmonization Efforts (presented at the ND GIS Users Conference, Grand Forks, ND, October 11-13, 2011)

Fritz, Ann M.K., Stewardship of the Watershed Boundary Dataset in North Dakota (presented at ND GIS Users Conference, Grand Forks, ND November 2-4, 2009)

Fritz, Ann M.K., 2001 Geologic Explorer's Guide to the Sheyenne National Grassland, North Dakota Geological Survey Education Series ED-27

Mitchell, Karen J.R., *Ann M.K. Fritz* and Ryan Waldkirch, 1999, Evolution of Digital Mapping Techniques in North Dakota (presented at the Digital Mapping Techniques Workshop '99 in Madison, WI, May 19-22, 1999)

Murphy, Edward C., *Ann M.K. Fritz*, and R. Farley Fleming, 1997, The Tolna and Jerusalem Outlets in the Devils Lake Basin, North Dakota, North Dakota Geological Survey Report of Investigation 100; available online at: https://www.dmr.nd.gov/ndgs/documents/Publication_List/pdf/RISeries/RI-100.pdf

Other Activities

- 2017 North Dakota GIS Users Conference Co-Chair
- 2015 North Dakota GIS Users Conference Chair (http://gis2015.ugpti.org/)
- 2013 North Dakota GIS Users Conference Co-Chair (http://www.und.nodak.edu/org/urg/
- Mentor – Comet Robotics First Lego League Team, Cathedral School, Bismarck, ND
- Boy Scout and Girl Scout Adult Leader and volunteer
- Semester internship at Argonne National Laboratory, Chicago, Illinois
- YMCA Camp Du Nord staff, Ely, MN