

SUMMARY OF QUALITIFICATIONS

- Six years of Geographic Information System (GIS) data analysis.
- Two years groundwater flow and transport modeling for multi-county municipality.
- Six months of Phase-I Environmental Site Assessment production.

EDUCATION

Received

Southern Illinois University (SIU)..... Aug. 2017
Master of Science, Geology, 4.0 GPA
SIU May 2015
Bachelor of Science, Geology, 3.3 GPA

SCIENTIFIC WORK

Duration

SIU - Carbondale, IL..... Jan. 2018 - *current*
Graduate assistant, STEM Education Research Center Assistant
Brown and Roberts Engineering Inc. - Harrisburg, IL..... Oct. 2017 – *current*
Contracted field scientist, hydrogeological analysis of IL groundwater reservoirs
SIU - Carbondale, IL..... May 2017 – Dec. 2017
Civil servant, educational display construction and building maintenance
Egyptian School District No. 5 - Tamms, IL Apr. 2017 - July 2017
Lead councilor, IL rural schools summer science-camp
Saline Valley Conservancy District - Eldorado, IL Apr. 2016 - May 2017
Private consultant, groundwater flow and transport modeling
SIU - Carbondale, IL..... Aug. 2014 - Dec. 2016
Graduate assistant, hydrogeology instructor and groundwater software developer
US Geological Survey (USGS) - Ft. Collins, CO May 2015 - Aug. 2015
GS5 Scientist, maintenance of ecosystem monitoring outposts
SIU - Carbondale, IL..... Aug. 2014 - Dec. 2015
Civil servant, hydrogeology instructor
SIU - Carbondale, IL..... Aug. 2013 - Feb. 2015
Undergraduate assistant, Experimental Petrography Laboratory Technician

SUPPLEMENTARY WORK

Bree's Studio Inc. - Murphysboro, IL Jul. 2007 - Oct. 2011
Shop assistant, museum diorama fabrication
Greenridge Ecological Produce - Carbondale, IL Apr. 2005 - May 2009
Groundskeeper, 38 acre organic farm/timber maintenance
Community Unit School District No. 186 - Murphysboro, IL..... May 2000 - Apr. 2005
Networking assistant, multi-building IT administration

TECHNICAL SKILLS

Field:

Monitoring well installation, Purge pump (Waterra), Soil auger (AMS), Seepagemeter, Piezoelectric-tape, Data-loggers (In-Situ), NELAP/ISO facility groundwater sampling (ARDL), Multimode field H₂O meter (Omega), USGS Pygmy Current Meter (Rickly), GPR Noggin Smart Cart (Sensors and Software), Geo Transit (Brunton), Solar modules (Solartech), NetCam (StarDot), and MANTIS sensors (USGS).

Laboratory:

Darcy column, HTP apparatus (Depths of the Earth), H₂O chiller (Thermoflex), Laboratory Kiln (ThermoSci.), Diamond saw (South Bay Tech.), Hotplate (Fisher Sci.), Grinder/polisher (Buehler), and Petrographic Microscope (Leica).

Software:

MODFLOW, MODPATH, HYSEP, Groundwater Toolbox (USGS), MT3DMS (USACE), Quantum-GIS (OSGeo), Python 2.7+, PyCharm 2017, Win-Situ Water Monitor (In-Situ), ArcGIS (ESRI), Creative Suite [2-7] (Adobe), 3d Studio Max (Autodesk), Microsoft Office, Windows OS, and Linux OS.

PUBLICATIONS AND PRESENTATIONS

Krienert, J.M., 2018. *Virtual Sandbox Display*. 22nd Science in the South Conference. SIU, Carbondale, IL.

Krienert, J.M., 2017. *Reevaluation of Contaminant Transport in the Henry Aquifer, Gallatin County, Illinois*. SIU Master of Science Thesis, Carbondale, IL.

Krienert, J.M., 2017. *Lunar Geology - Augmented Reality Sandbox Educational Display*. Great American Solar Eclipse: SIU Arena Science Expo, Carbondale, IL.

Krienert, J.M., H. Henson and A. Box, 2017. *Digital Topography: Teaching Earth Science Concepts Using the Interactive Sandbox*. 21st Science in the South Conference. SIU, Carbondale, IL.

Krienert, J.M., and S.P. Esling, 2015. *Graphic Groundwater GIS; MODFLOW and MODPATH Modeling with an Open-Source Geographic Information System*. Fall 2015 IGA Meeting. Naperville, IL.

Esling, S.P. and J.M. Krienert, 2015. *Graphic Groundwater Excel; MODFLOW and MODPATH Modeling in a Spreadsheet*. Fall 2015 IGA Meeting. Naperville, IL.

Miller, B. W., Chong, G., Steltzer, H., Aikens, E., Morisette, J.T., Talbert, C., Talbert, M., Shory, R.,

Krienert, J.M., and Gurganus, D, 2015. *What You See Depends on Your Point of View: Comparison of Greenness Indices Across Spatial and Temporal Scales and What That Means for Mule Deer Migration and Fitness*. AGU Fall Meeting 2015, abstract #B31G-02.

HONORS AND EXTRAMURAL

IGA Fall 2017 Conference Presenter, IGA Spring 2016 Grant, SIU Spring 2016 Porter-Jobling Scholarship, IGA Fall 2015 Conference Presenter, SIU Fall 2015 GIS Exhibition, USGS Summer 2015 Internship, SIU 2012 - 2015 Deans' list, SIU Spring 2014 Ira E. Odom Scholarship.

2017 Illinois Science Assessment Test Analyst, SIU Geology Club, SIU Science Ambassadors, SIU Volunteer Corps, SIU Geology Guest Lectures, Habitat for Humanity, and GreenEarth Inc.

REFERENCES

Dr. Steve P. Esling (8 yr.), Hydrogeologist SIU, esling@siu.edu, 618-453-7376

Dr. Justin Filiberto (7 yr.), Petrologist SIU, filiberto@siu.edu, 618-453-4849

Dr. Harvey Henson (18 yr.), Geophysicist & Science Educator SIU, henson@siu.edu, 618-453-4214

Dr. Geneva Chong (4 yr.), Research Ecologist USGS, geneva_chong@usgs.gov, 307-201-5425

Dr. Jeffrey Morisette (4 yr.), Field Scientist USGS, morisettej@usgs.gov, 303-968-8986