

I. EDUCATION

- a. Ph.D.: Department of Geosciences, Georgia State University
Graduation estimate: 2018
Major: Chemistry with a Concentration in Geology
Advisor: Dr. Daniel Deocampo
- b. M.S.: Department of Geology, University of Georgia
Graduated: 2011
Major: Geology
Sub-discipline: Hydrogeology
Advisor: Dr. John Dowd
- c. A.B.: Department of Geology, University of Georgia
Graduated: 2008
Major: Geology

II. PROFESSIONAL EXPERIENCE

- a. Georgia Perimeter College - Clarkston, Georgia (September 2014-present)
Lecturer, Science Department
- b. Georgia Perimeter College - Clarkston, Georgia (August 2011-July 2014)
Instructor, Science Department
- c. Georgia Perimeter College - Clarkston, Georgia (August 2010-July 2011)
Adjunct Instructor, Science Department
- d. University of Georgia, Athens, Georgia (2010)
Graduate Teaching Assistant, Department of Geology
Advisor: Dr. Sam Swanson
- e. University of Georgia, Athens, Georgia (2007-2008)
Student Worker through the Federal Work-Study Program, Odum School of Ecology
- f. University of Georgia, Athens, Georgia (2006-2007)
Student Worker, Department of Geology
- g. University of Georgia, Athens, Georgia (1997-2004)
Data Entry Clerk I, Extension Agricultural and Applied Economics

III. RESEARCH INTERESTS

- a. Shallow field geophysics including hydrogeophysics, utilizing shallow field methods such as ground-penetrating radar (GPR) and electrical resistivity to image and quantify soil moisture and flowpaths within shallow Earth layers
- b. Groundwater contaminant transport characterization and modeling
- c. Aqueous geochemistry in freshwater as well as groundwater environment, and, to some extent, marine environments
- d. Fate and transport of metals and organic/inorganic chemical species in aqueous and sedimentary environments including the transport of adsorbed materials

- e. Soil physics utilizing field measurements as interpreted analytically and through modeling techniques such as HYDRUS
- f. Pedology, soil classification and characterization in the field and laboratory
- g. Hydrogeology and hydrology including modeling and field mapping
- h. Environmental geoscience and ecology, including bioremediation
- i. Wildfire science and modeling
- j. Planetary geology especially regarding the possibility of water on distant planetary bodies
- k. GIS-based geological mapping in both plan and cross-section
- l. Geological field mapping

IV. PROFESSIONAL ACTIVITIES

- a. Vice President: Georgia State University's Geosciences Club: April, 2015 – present
- b. Co-coordinator: MESA (part of the STEM initiative) at Georgia Perimeter College: January, 2014 – present
- c. Advisor: Georgia Perimeter College, Earth Club on the Clarkston Campus, 2011-2012
- d. Invited poster presentation, Graduate Students and Post Docs in Science 1st Annual Interdisciplinary Poster Day, July 1, 2009: "Geological Controls on Fractured Bedrock Wells in the Piedmont: a Case Study in Franklin County, Georgia"
- e. Student assistant: Georgia Water Resources Conference, April 27-29, 2009, Athens, Georgia
- f. Senior thesis, Department of Geology, University of Georgia, 2008: "Geological Controls on Fractured Bedrock Wells in the Piedmont: a Case Study in Franklin County, Georgia"
Advisor: Dr. John Dowd
- g. Member: University of Georgia, Department of Geology, Geology Club, 2007-2010

V. PUBLICATIONS

- a. Fitzpatrick, S.D., Schroeder, P.A., and Endale, D. (2014) Creating Deep Soil Cores: Beyond the Solum. *Southeastern Geology*, v. 51, n. 2, 2015

VI. MEETING ABSTRACTS

- a. Fitzpatrick, S.D. (March 2015) A STEM Based Approach to Teaching Geophysics Utilizing Sound Files. Oral presentation: 2015 Southeastern Section Geological Society of America Annual Meeting. Chattanooga, Tennessee
- b. Fitzpatrick, S.D. (November 2012) A Method for Creating Soil Core Monoliths Using a Solution of Acetone and Polyvinylidene Chloride. Poster presentation: 2012 Southeastern Section Geological Society of America Annual Meeting. Asheville, North Carolina

VII. SCHOLARSHIPS AND GRANTS

- a. Bernadette and Gilles Allard Award, Department of Geology, University of Georgia, 2010
- b. Joseph W. Berg Scholarship in Geophysics, Department of Geology, University of Georgia, 2010
- c. Miriam Watts-Wheeler Graduate Studies Student Fund, Department of Geology, University of Georgia, 2010
- d. Joseph W. Berg Scholarship in Geophysics, Department of Geology, University of Georgia, 2009

VIII. LICENSES

- a. Registered Professional Geologist, State of Georgia, license currently active until December, 2015: PG002169

IX. FIELD EXPERIENCE

- a. Geological field mapping
 - i. Sapelo Island, Georgia
 - ii. The North Georgia Piedmont including Clarke, Rabun and Franklin Counties
 - iii. North Carolina
 - iv. Colorado, including the South Colorado Plateau
 - v. Utah
 - vi. New Mexico
- b. Hydrological and hydrogeological field characterization
 - i. Clarke, Dekalb and Franklin Counties, Georgia
- c. Geophysical Mapping and Deployment
 - i. Shallow-field Geophysics Field School
 - ii. SUGAR (Suwanee Suture and GA Rift Basin) Experiment

X. FIELD EQUIPMENT EXPERIENCE

- a. Ground-penetrating Radar (GPR) mapping with SIR-2000
- b. Brunton Geological Compass
- c. Garmin GPS Receivers
 - i. Vista HGx
 - ii. Gecko
- d. Electrical resistivity arrays
- e. Tlaloc artificial rain simulator
- f. Campbell datalogger
- g. Tipping rain bucket
- h. Piezometer (monitor well) installation

XI. ANALYTICAL INSTRUMENTATION EXPERIENCE

- a. Bruker D-8 Advance x-ray diffraction (XRD) system
- b. Tempe cell soil moisture analysis
- c. Polarizing petrology microscopes
- d. High-speed centrifuge
- e. McCrone micronizing mill

XII. TEACHING AND MENTORING EXPERIENCE

- a. Speaker for the monthly Atlanta Geological Society (AGS) PG Candidate Workshop, September 26, 2015: Surficial and Aquatic Geochemistry
- b. Tutor, Learning and Teaching Center, Georgia Perimeter College, Clarkston, Georgia, August 2011 – present: on-call to provide learning assistance and tutoring to students for environmental science
- c. Instructor/Lecturer, Science Department, Georgia Perimeter College, Clarkston, Georgia, August 2010 – present: physical and historical geology lecture and lab; environmental science lecture and lab; and integrated science
- d. Popular STEM and STEAM Talk Lecturer: Popular STEAM (formerly STEM) Talks are one-day, 20-20 minute lecture presentations on a variety of STEM (Science, Technology, Engineering and Math) subjects given by the faculty at Georgia Perimeter College. These presentations are recorded and posted on the following websites....

Popular STEM talks: <http://depts.gpc.edu/~gpcstem/PopularTalks.html>

Popular STEAM talks: <https://www.youtube.com/channel/UCpwSPbxXH8xQHFYXPg2j49Q>

- i. “Earth Rocks – Music of the Sphere,” 4/9/2015
<https://www.youtube.com/watch?v=1rShY3zuRKO>
- ii. “The Fracking Truth: Using Hydraulic Fracturing for Mining Fossil Fuels,” 4/7/2014
<https://www.youtube.com/watch?v=FGdVSoJ4GII>
- iii. “Science or Folk Art? A Method for Constructing Soil Core Monoliths,” 3/27/2013
<https://www.youtube.com/watch?v=xVpj8PjLlPQ>
- iv. Europa: Investigating the Possibility of a Subsurface Ocean,” 10/10/2011
<https://www.youtube.com/watch?v=IcPEDPuYPUE>
- v. “Modeling Wildfires,” or “Wildfires: a Necessary Hazard,” 10/22/2010
<https://www.youtube.com/watch?v=CpXlxflOoqg>
On WGBH Forum: <https://www.youtube.com/watch?v=kLtfXBvwoPM> and
<http://fn-stage.wgbh.org/lectures/steve-fitzpatrick-wildfires-a-necessary-hazard/>
- e. Teaching Assistant/Laboratory Instructor, Department of Geology, University of Georgia, Athens, Georgia, January - May, 2010: Geology 1121 and 1121L – Physical Geology and Physical Geology Laboratory
- f. Assistant Instructor, Independent and Distance Learning, University of Georgia, Athens, Georgia, July 2009 - August 2009: Geology 1121 – Physical Geology and Geology 1122 – Historical Geology
- g. Tutor, Athletic Association, University of Georgia, Athens, Georgia, April – December, 2009: physical geology, historical geology, ecology, geography and oceanography
- h. Teaching Assistant, Osher Lifelong Learning Institute, University of Georgia, Jekyll Island, Georgia, February 8-10, 2009: adult education class on coastal processes

XIII. SERVICE

- a. Atlanta Science Festival
 - i. Second Annual Atlanta Science Festival: geocaching team
 - ii. First Annual Atlanta Science Festival: presentation
- b. Guest teacher: Springdale Park Elementary School, STEM day, Atlanta, Georgia, spring 2015
- c. Guest teacher: Inman Park Middle School, 6th grade class, Atlanta, Georgia, fall 2013
- d. Stream clean-up Earth Club
- e. Monitor well installation
- f. Guest teacher: geology, Athens Montessori School, Athens, Georgia
 - i. Kindergarten class, 2010
 - ii. 4 and 5th Grade class, 2009
 - iii. Middle School aged class, 2008
- g. River Rendezvous: 2 years

XIV. PROFESSIONAL AND ACADEMIC ORGANIZATIONS

- a. American Association of Petroleum Geologists (AAPG)
- b. American Institute of Professional Geologists (AIPG)
- c. Atlanta Geological Society (AGS)
- d. Geological Society of America (GSA)
- e. National Association of Geoscience Teachers (NAGT)
- f. Sigma Gamma Epsilon (Σ ΓE), Geoscience Honors Society