

May 2016

Curriculum Vitae

Geoffrey Fouad

Department of History and Anthropology, Monmouth University

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Areas of Specialization

I am a **geographer** who uses **geographic information systems (GIS)**, **remote sensing**, and **modeling** to study **environmental** systems in space and time.

Education

San Diego State University/UC Santa Barbara	Ph.D. in Geography	awarded May 2016
University of South Florida	M.S. in Environmental Science	awarded May 2009
University of South Florida	Graduate Certificate in GIS	awarded May 2009
Catawba College	B.S. in Environmental Science	awarded May 2006

Awards

European Geosciences Union Early Career Scientist's Travel Award, December 2015

San Diego State University Graduate Student Travel Fund, February 2013

Jack and Laura Dangermond Geography Travel Scholarship, January 2012

Southwest Region of the American Society for Photogrammetry and Remote Sensing Graduate Student Achievement Award, January 2011

University of South Florida Fred and Helen Tharp Graduate Scholarship, November 2008

Technical Skills

GIS and remote sensing – R, ERDAS, and ArcGIS

Statistical modeling – Regression techniques, model selection, and prediction

Machine learning – Variable selection, cluster analysis, and prediction

Hydrologic modeling – Statistical, geostatistical, and conceptual models

Programming languages – R, MATLAB, and Python

Research and Teaching Appointments

Assistant Professor of Geography, Monmouth University, West Long Branch, New Jersey starting August 2016

Adjunct Professor, Physical Geography, Mesa College, San Diego, California Fall 2015

Adjunct Professor, GIS, Palomar College, San Marcos, California Fall 2015

Graduate Assistant, Joint Doctoral Program in Geography, San Diego State University and UC Santa Barbara August 2010-August 2015

Contract Researcher, Florida Water Science Center, US Geological Survey, Tampa, Florida October 2008-August 2010, Summer 2011-2013

Graduate Assistant, Environmental Science and Geography Program, University of South Florida, Tampa, Florida August 2007-May 2009

May 2016

Courses Taught

Upper Level

GIS Applications and Programming (GEOG 134), Fall 2015
GIS Program, Palomar College

Flow Duration Curve Module of Hydrology Course (GEOG 511 – Professor Allen Hope), Spring 2015 and 2016
Department of Geography, San Diego State University

Wildfire Modeling and Management Module of World on Fire (GEOG 512 – Professor Allen Hope), Fall 2014
Department of Geography, San Diego State University

R Programming Module of Graduate Modeling Seminar (GEOG 780 – Professor Allen Hope), Spring 2013
Department of Geography, San Diego State University

Global Climate Change (GEOG 409), Fall 2012
Department of Geography, San Diego State University

Lower Level

Introduction to Physical Geography (GEOG 101), Fall 2015
Geography Program, Mesa College

Introduction to Physical Geography Lab (GEOG 101L), Fall 2015
Geography Program, Mesa College

Earth's Physical Environment (GEOG 101), Fall 2013
Department of Geography, San Diego State University

Introduction to Physical Geography Lab (GEOG 101L – Professor Philip Reeder), Spring 2008 and 2009
Department of Geography, University of South Florida

Publications

Hope, A., **G. Fouad**, and Y. Granovskaya. 2014. Evaluating drought response of Southern Cape Indigenous Forests, South Africa, using MODIS data. *International Journal of Remote Sensing*, 35(13), 4852-4864.

Lee, T.M. and **G. Fouad**. 2014. *Creating a monthly time series of the potentiometric surface in the Upper Floridan aquifer, Northern Tampa Bay area, Florida, January 2000-December 2009*. US Geological Survey Scientific Investigations Report 2014-5038, <http://dx.doi.org/10.3133/sir20145038>.

Alsharif, K.A. and **G. Fouad**. 2012. Lake performance differences in response to land use and water quality: Data envelopment analysis. *Lake and Reservoir Management*, 28(2), 130-141.

Fouad, G. *Assessing the performance of water bodies in Hillsborough County, Florida using data envelopment analysis (DEA)*. M.S. thesis, University of South Florida, 2009.

In Preparation

Fouad, G. and A. Skupin. Prediction and exploratory analysis of the flow duration curve using the self-organizing map.

Fouad, G., A. Skupin, and C. Tague. How simple can independent variables be for regional regression modeling of the flow duration curve?

Fouad, G. Independent variable selection for regression modeling of the flow duration curve for ungauged basins in the US.

Reviewer for Journals

International Journal of Remote Sensing
Remote Sensing Letters

Presentations

Fouad, G., A. Skupin, and A.S. Hope. *Independent variable complexity for regional regression of the flow duration curve in ungauged basins*. European Geosciences Union General Assembly, Vienna, Austria, April 17-22, 2016.

Fouad, G. *Graduate student research showcase on geography*. San Diego State University Student Research Symposium, San Diego, California, March 4-5, 2016.

Fouad, G. *Geographic regions as hydrologic predictors*. Los Angeles Geographical Society Student Research Symposium, Los Angeles, California, May 8, 2015.

Alsharif, K.A. and **G. Fouad**. *Optimization technique to study lakes in Hillsborough County, Florida*. North American Lake Management Society International Symposium, Tampa, Florida, November 12-14, 2014.

Fouad, G. *Drought monitoring using satellite vegetation data*. San Diego State University American Society for Photogrammetry and Remote Sensing Student Chapter Workshop, San Diego, California, October 23, 2014.

Fouad, G., A.S. Hope, and Y. Granovskaya. *Utility of MODIS data in forested ecosystems with frequent cloud cover*. Association of American Geographers Annual Meeting, Tampa, Florida, April 8-12, 2014.

Fouad, G. and A.S. Hope. *Graduate student research showcase on computational modeling in biology*. San Diego State University Student Research Symposium, San Diego, California, March 7-8, 2014.

Fouad, G., A.S. Hope, and A. Skupin. *Comparison between watershed classifications using the entire hydrograph versus the flow duration curve in central and southern California*. Association of American Geographers Annual Meeting, Los Angeles, California, April 9-13, 2013.

Lee, T.M. and **G. Fouad**. *Standardized methods to compare hydrologic conditions in depressional freshwater wetlands*. INTECOL International Wetlands Conference, Orlando, Florida, June 3-8, 2012.

Fouad, G., A. Skupin, and A.S. Hope. *Environmental controls of watershed-scale vegetation phenology in water-limited ecosystems*. Association of American Geographers Annual Meeting, New York City, New York, February 24-28, 2012.

Fouad, G., A. Skupin, and A.S. Hope. *Effects of MODIS data noise on phenology-based self-organizing maps in water-limited ecosystems*. American Geophysical Union Fall Meeting, San Francisco, California, December 5-9, 2011.

Fouad, G. and T.M. Lee. *Interpolating the potentiometric surface beneath wellfields in west-central Florida*. Esri International User Conference, San Diego, California, July 11-15, 2011.

Fouad, G. and T.M. Lee. *Using monthly average potentiometric surfaces and light detection and ranging (LiDAR) data to investigate surface and groundwater relations in west-central Florida*. Association of American Geographers Annual Meeting, Seattle, Washington, April 12-16, 2011.

Lee, T.M. and **G. Fouad**. *The interdependence of headwater wetlands, groundwater levels, and streamflow before and after mining*. US Environmental Protection Agency State of the Science Conference: Environmental Issues Associated with Phosphate Mining, Punta Gorda, Florida, March 28-29, 2011.

Alsharif, K.A. and **G. Fouad**. *Ranking lakes according to their water quality indicators and land use*. Association of American Geographers Annual Meeting, Washington, D.C., April 14-18, 2010.

Lee, T.M. and **G. Fouad**. *Using LiDAR data to assess the interdependence of headwater wetlands, groundwater levels, and streamflow in central Florida watersheds*. American Water Resources Association Spring Specialty Conference: GIS and Water Resources VI, Orlando, Florida, March 29-31, 2010.

Fouad, G. and K.A. Alsharif. *Examining the relationship between lake water quality and natural land in Hillsborough County, Florida*. Florida Society of Geographers Annual Meeting, Tampa, Florida, January 15-17, 2010.

Fouad, G. *Water management recommendations derived from a data envelopment analysis (DEA) examining the relationship between lake water quality and natural land*. Interdisciplinary Environmental Association Annual Meeting, Daytona Beach, Florida, July 8-11, 2009.