

Andrew J. Lapetina
Curriculum Vitae

Contact Information:

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Educational History:

The University of Florida, Gainesville, Florida
Doctorate in Philosophy (Dissertation Defended October 2013)
Civil and Coastal Engineering, focus in Coastal and Oceanographic Engineering

- Completed extensive graduate coursework in fluid mechanics, numerical modeling, wetlands and systems ecology, linear wave theory, data analysis, turbulence and applied mathematics
- Conducted research on storm surge modeling, flow through vegetation, storm surge monitoring, and valuing ecosystem services

Princeton University, Princeton, New Jersey
Bachelor's of Science and Engineering, Cum Laude (2007)
Civil and Environmental Engineering, focus in Structural Engineering

Teaching Experience:

Instructor, Introduction to Coastal and Oceanographic Engineering University of Florida
Fall 2012 to Present Gainesville, FL

- Familiarize undergraduate students with coastal and geophysical processes including wave motion, ocean currents, sediment transport, and current ocean topics
- Structure assignments to learn engineering principles and spreadsheet programming to foster acquisition of valuable transferrable skills
- Manage communication and assignments via an online learning system
- Student rating of 4.83/5

Organizer and Instructor, Coastal Engineering Skills Seminars University of Florida
April 2012 to April 2013 Gainesville, FL

- Taught graduate students how to set up personal webpages and the basics of Linux
- Organized seminars on open-source data, MATLAB, and other topics

Publications:

The Reduction of Storm Surge by Vegetation Canopies: Three-dimensional Simulations, Y. Peter Sheng, Andrew Lapetina, and Gangfeng Ma, 2012. *Geophysical Research Letters*
Three-Dimensional Modeling of Storm Surge and Inundation including the Effects of Coastal Vegetation, Andrew Lapetina and Y. Peter Sheng. Accepted, 2013. *Estuaries and Coasts*
The Influence of Vegetation on Storm Surge Propagation in the Northern Gulf of Mexico. Andrew Lapetina and Y. Peter Sheng. Under Review, *Journal of Geophysical Research-Oceans*

Graduate Research Experience:

Graduate Research Assistant
August 2008-Present
University of Florida
Gainesville, FL

- Performing research under Professor Peter Sheng on storm surge dissipation in wetlands
- Improving CH3D, a curvilinear, three-dimensional circulation model to include the flow and turbulence effects of vegetation
- Built a mobile storm surge monitoring system consisting of water level meters to collect data on the dissipation of surge in vegetated wetlands

Academic and Service Awards:

The University of Florida Alumni Graduate Award Recipient (2008-2012)
Joseph Clifton Elgin Prize, Princeton School of Engineering and Applied Science (2007)
Moles Society Scholarship, Civil and Environmental Engineering Department (2006)

Practicing Experience:

Assistant Engineer
July 2006 to July 2008
Clough Harbour and Associates LLP
Richmond, VA/Albany, NY

- Collected field data for geotechnical, mechanical, structural and civil divisions
- Authored reports and proposals for geotechnical and civil divisions
- Analyzed data for design recommendations for geotechnical and structural divisions

Project Manager/President
September 2005 to July 2006
Engineers Without Borders-Princeton
Kumudo, Ethiopia

- Designed and built a water supply system for irrigation
- Managed 8 students and P.E., along with local volunteer laborers
- Fundraised over \$60,000 for the chapter from university and private sources
- Assisted in oversight of a solar energy project in Huamanzaña, Peru

Certifications:

Engineer in Training in the Commonwealth of Pennsylvania (2007)
LEED® Accredited Professional by the United States Green Building Council (2007)

Programming Skills:

Extensive experience programming in Fortran
Significant experience using bash scripting, Sed, AWK, MATLAB, and GIS software
Proficient with Windows and Linux
Skilled at creating webpages with HTML and CSS

Other Activities and Honors:

Leader of Men's Meditation and Book Study Group, St. Augustine's Church, Gainesville, FL
September 2011 to Present

Member of Gainesville Rugby Club, September 2008 to Present
Rookie of the Year (2008-2009)