

## EDUCATION

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### **Master of Environmental Science and Management** (Expected June 2010)

#### **Corporate Environmental Management Specialization**

Bren School of Environmental Science & Management – University of California, Santa Barbara

Thesis Group Project: Partnering with AECOM; assessing the feasibility of a strategic combination of greenhouse gas (GHG) reduction options in the city of Ventura, CA; authoring software to assist city managers across California recreate similar results; conducting GIS analyses of renewables; acting as scientific lead and website manager (March 2009 – Present)

Involvement: Assistant Researcher, Holden Laboratory – Marsh Water Quality Studies

### **Bachelor of Science with distinction in Geographic Science** (May 2008)

#### **Integrated Science and Technology Minor/Environmental Science Concentration**

James Madison University (JMU) – Harrisonburg, VA

Senior Honors Thesis (SHT): "Investigating Marine Algal Blooms as a Renewable Energy Source"  
Original theoretical work tying MODIS satellite data and bomb calorimetry work together for estimating potential energy of renewable biodiesel from marine algae; won best Geographic SHT

Leadership: Speaker/Head Coordinator – ecoSymposium; Project Leader/Coordinator – Green Fund (passed student initiative to raise funds for sustainability); Social Director/Website Author – Geography Club; Coordinator/Website Creator – JMU Green Team; Featured Graduating Science Student – JMU STEM Video Website; Staff Photographer – Collegiate Times/The Breeze

## INTERNSHIP EXPERIENCE

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**AECOM Environment**, Santa Maria, CA

**Environmental Analyst Intern** (May 2009 – Present)

- Conduct utility GHG inventory for Los Angeles Community College District (LACCD), Vandenberg Air Force Base (VAFB) air compliance, and GHG abatement strategy design

**NASA (National Aeronautics and Space Administration)**, Hampton, VA

**GIS Intern** (June 2008 – August 2008)

- Supported GIS and ArcIMS needs for the Langley Research Center and Johnson Space Center
- Directed by the Virginia Space Grant Consortium Program

**Center for Energy and Environmental Sustainability**, JMU, Harrisonburg, VA

**Research Intern** (May 2007 – September 2007)

- Researched possible uses for excess poultry litter produced in the Shenandoah Valley
- Conducted GIS analysis of travel and break-even transport distances for fertilizer

**Institute for Infrastructure and Information Assurance**, JMU, Harrisonburg, VA

**Research Intern** (May 2007 – September 2007)

- Migrated container GIS to open-source software; researched available open-source GIS solutions

## PRESENTATIONS

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- California AEP Graduate Student Showcase. 2nd Place. Algal Biodiesel as a Renewable Fuel (3/09)
- Virginia Innovation Showcase. A Geographic Information System for Simulating International Container Movement (GISSCM) (11/07)
- COVES: Commonwealth of Virginia, Energy and Sustainability Conference. Poultry Litter Life Cycle Issues in the Shenandoah Valley (10/07)
- Institute for Infrastructure and Information Assurance Research Review Symposium. Poultry Litter in the Shenandoah Valley: A Renewable Resource (9/07)

## SKILLS AND INTERESTS

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**Instrumentation Experience**: Ion Chromatograph, Nikon C1 Confocal Laser Scanning Microscope, Spectrophotometer, Hemocytometer, Bomb Calorimeter, Waterproof Conductivity Meter Kit, Plant Growth Chamber

**Computer Skills**: Mac OS X, Linux, Windows, ArcGIS 9.3, QGIS, ERDAS Imagine, Nikon NIS Elements AR, Microsoft Office, Adobe CS3 Suite, Apple iWork, REALBasic, Website Design

**Interests/Distinctions**: Eagle Scout, Order of the Arrow, Geographic Science Service Award