# Kelly Cortney Gustafson

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#### **OBJECTIVE**

Use scientific, communication and researching skills to provide the required field data in the discipline of freshwater management necessary to analyze ecosystems and their sustainability in order to find integrated, interdisciplinary solutions for continued use as natural resource consumers

#### **EDUCATION**

Florida International University

Miami, FL

#### Graduated Student – M.S. Environmental Studies (Spring 2011-present)

- Department of Earth and Environment
- Cumulative GPA: 3.4
- Graduation Fall 2014

Florida International University Miami, FL

#### Non-Degree Seeking Student (Fall Semester 2010)

- Organic Chemistry w/ Lab
- Term GPA: 3.8

Florida State University

Tallahassee, FL

#### Bachelors in Science – Environmental Studies (August 7, 2010)

- Minor: Philosophy
- Study Abroad: Panama city, Panama
- Cumulative GPA: 3.3

## **RESEARCH EXPERIENCE**

Florida International University Miami, FL

#### Research Assistant (Jan, 2011- present)

- Newest member of the NASA WaterSCAPES research team headed by Dr. Fernando Miralles-Wilhelm
- Enhancing remote sensing, GIS analysis, and system dynamics modeling skills
- Attending several formal academic lectures regarding environmental sustainability and global climate change

NASA Goddard Space Flight Center

## Greenbelt, MD

## Summer Internship (May 2012-Aug.2012)

- Researched climate-ecosystem variability and the relationship to human health under Dr. Assaf Anyamba's mentorship.
- Utilized IDL coding to process NDVI information from MODIS satellite data

- Analyzed resulting temporal and spatial correlations between climate-ecosystem anomalies and Murray Valley Encephalitis outbreaks in Australia
- Presented research at American Geophysical Union 2012 Fall Meeting

## University of Maryland

#### College Park, MD

## Summer Internship (2011, 2013)

- Assisted Dr. Eugenia Kalnay with development of computer model for regional freshwater resource supply predictions
- Provided all quantitative and qualitative parameters based on meta-analysis of long-term statistics
- Successfully simulated how 2011 famine started in Somalia
- Presented research at American Geophysical Union 2011 Fall Meeting

## **PRESENTATIONS**

FIU Earth & Environment Graduate Research Symposium Miami, Florida

#### **Poster Presentation**

- Freshwater Resource Supply Modeling Using System Dynamics (2014)
- <u>Australia: Climate-Ecosystems Variability and Impact on Disease (2013)</u>

## AGU Fall Meeting

San Francisco, CA

#### **Poster Presentation**

- <u>Australia: Climate-Ecosystems Variability and Impact on Disease (2012)</u>
- How Famine Started in Somalia: A Simple Water Model (2011)

## THESIS

Freshwater Resource Supply Modeling for Developed and Undeveloped Watersheds

• Developing a system dynamics model for the coupled natural-human freshwater resource supply system to identify sensitive variables, comprehensively understand nonlinear internal behavior pattern and aid in sustainable water management decision-making

## **COMPUTER EXPERIENCE**

Scientific Applications

- Matlab
- Groundwater Vistas
- SGeMs

Other Applications

- Vensim
- SPSS
- MS Office

- ArcGIS
- ENVI
- IDL

# **OTHER EXPERIENCE**

South Florida Science Museum

West Palm beach, FL

## Education Intern (Sept. 2010 – Dec. 2010)

- Assisted teaching and compiling course materials for daily physics, chemistry and earth science classes for ages 18 mo. 2 yrs.
- Volunteered face painting services for monthly museum social/academic functions to help boost societal participation with the museum
- Provided assistance with organizing museum functions by sending out invitations for complete mail-out lists, compiling flyer packets, decorating, and preparing experimentations.
- Aided in miscellaneous tasks to ensure smooth daily operations including managing and running the planetarium shows, feeding aquarium animals and cleaning fish tanks.

# **ACTIVITIES AND MEMBERSHIPS**

Sigma Xi, The Scientific Research Society

• Member 2012-2014

NASA Student Leadership URC Series

- Active participant
- 2012 Florida Regional High School Science Bowl
  - Judge and Score-keeper
- 2011 System Dynamics Conference
  - Attended as student member

Gender and Water Alliance

• Member 2011-present

# **HONORS**

NASA-FIU WaterSCAPES Grant Dean's List Bright Futures Scholarship 2011- present 2008 - 2010 2006 - 2010