

Education

Current – M.S. Coastal Sci.	University of Southern Mississippi – MS	Expected: Dec 2017
2014 – B.S. Ecology	Rutgers University – New Brunswick, NJ	3.73
2011 – A.S. Biology	Raritan Valley Community College – Branchburg, NJ	3.88

Research Interests

I am interested in the analyses of geospatially referenced big data – specifically through use of GIS and Bayesian statistics – and their use in making informed decisions about the natural world.

Skills and Techniques

Software

- ArcGIS Suite
- Postgres SQL, Microsoft SQL, MySQL
- OpenBUGS

Programming Languages

- C#, Java
- Python, CRAN R (RJAGS, rgdal, sp)
- Javascript, HTML, CSS, PHP

Research Experience

Research Assistant, University of Southern Mississippi January 2016 - Current

Gulf Coast Research Laboratory – Ocean Springs, MS

- Write R, Python, and bash to process and analyze geospatial data for the US Gulf Coast
- Manage SQL database backend using Postgres, which interfaces with web applications
- Web admin for ecospatial.usm.edu – ecological GIS/data repository and outreach
- Conduct statistical analyses using Bayesian statistics
 - Mechanistic wetland loss model using remote sensing imagery
 - Meta-analysis of USD\$ valuation of wetland loss
 - Spatial prediction of wetland loss proximal to oil production
- 4 publications in writing

Wildlife/GIS Specialist, USDA Wildlife Services – New York, NY April 2015 - October 2016

- Managed avian wildlife in a high-risk, professional, sensitive environment (JFK airport)
 - Trapping, pyrotechnics, removal, egg treatment, nest removal, relocation
- Created GIS deer habitat predictions for white-tailed deer management project
- Created R tool to visualize monthly wildlife conflict hotspots on airfield
- Surveyed, recorded, and generated electronic reports on a daily basis
- Sampled blood (plasma) for Cornell Newcastle disease study

Other

- Presentations
 - Bays and Bayous Conference – 2016
 - Ocean Springs Upper Elementary School – 2017
- Attended NSF Socio-environmental Synthesis Center – Summer 2016
- Collaborated in development of high school GIS and sea-level rise curriculum – 2016