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## Professional Employment

### United States Geological Survey, Grand Canyon Monitoring and Research Center

#### *Geographer (10/2014 – present)*

- Author custom static and data-driven web pages and web applications using HTML, CSS, and Javascript (including web map libraries Leaflet, Mapbox.js, and ESRI Javascript API).
- Write and update Python programs utilizing ESRI's arcpy Mapping module to generate custom river atlases for field personnel and author tools and toolboxes for common GCMRC GIS tasks.
- Pair-program custom ArcObjects .NET framework applications written in either VB.NET or C# to perform complex geometry calculations and feature class creation.
- Publish ArcGIS Server REST services to be consumed by the public and custom GCMRC web applications.

### United States Army Corps of Engineers, Jacksonville District

#### *Cartographer (08/2013 – 10/2014)*

- Rapidly author maps and atlases as needed while organizing and publishing spatial data as REST service endpoints.
- Write SQL statements updating spatial and non-spatial tables in PostgreSQL database.
- Develop custom Python scripts to automate geoprocessing tasks including programmatically generating flood inundation profile pages that correctly correspond to adjoining flood inundation atlas page.
- Adhere to standard operating procedure for national program developing flood inundation atlases.
- Process LiDAR data and edit 3D break lines to produce ESRI terrain datasets and digital elevation models.

### South Carolina Department of Natural Resources, Marine Resources Research Institute

#### *Wildlife Biologist II (03/2013 – 08/2013)*

- Maintained statewide geodatabase of oyster reefs and shellfish harvesting permit areas and produced statewide map series of permitted shellfish resource management areas for customers, recreational fishing license holders, and law enforcement.
- Developed map series automation techniques using ArcGIS and Python to reduce time of map production.
- Mentored undergraduate intern in the application of geospatial technology to natural resource management.

### University of Georgia, Marine Extension Service

#### *GIS Project Manager (11/2007 – 07/2010)*

- Supervised multiple projects and coauthored technical reports to funding agencies.
- Trained field personnel in GPS data collection and supervised lab technicians in GIS and remote sensing analysis.
- Made GIS hardware and software recommendations to GIS Lab Coordinator and maintained GIS software installations.
- Aided in development of oyster reef inventory collection procedures and database management (including programming custom data entry forms for ESRI ArcPad with Visual Basic) and managed geodatabase of wetland habitat data.

#### *GIS Technician (03/2005 – 10/2007)*

- Performed aerotriangulation and orthorectification of aerial photography.
- Updated historical invasive species and water quality geodatabases through archival research and heads-up digitizing.
- Created maps for print (posters, academic journals) and interactive web maps using the Google Maps API.
- Digitized training sets and performed accuracy assessment for automated feature extraction remote sensing technique comparison using Feature Analyst and eCognition.

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## Education & Certification

### The University of Georgia

*Ph.D. in Geography*, Matriculation: 08/2011, Withdrew: 01/2013 GPA: 3.94/4.00

*M.S. in Geography*, Matriculation: 08/2009, Graduation: 08/2011 GPA: 4.00/4.00

*B.S. in Geography (Certificate in GIS and Geology minor)*, Matriculation: 08/2003, Graduation: 12/2007 GPA: 3.41/4.00

### GIS Certification Institute

GIS Professional – Certification Number: 90520 (03/2015 – 03/2020)

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## Technical Skills

- Software:** ESRI: ArcView 3.3, ArcGIS 9.0-10.3, ArcGIS for Server, ArcPad, ArcSDE (Oracle and PostgreSQL); ERDAS Imagine; Overwatch: Feature Analyst, LiDAR Analyst; Trimble: eCognition, Pathfinder Office, Business Center; QGIS 2.0; MapBox TileMill; Statistical packages: STATA, R; Adobe Illustrator; Microsoft: Word, Excel, Access, PowerPoint, SharePoint; Text Editors/IDEs: Visual Studio 2013, Sublime Text, Notepad++, Cloud9, Nitrous, Git
- Hardware:** Trimble: R8 GNSS Receiver, GeoXT/XH GPS receiver; Juniper Archer GPS Receiver; Laser Technology TruPulse 360 Laser Rangefinder; RieglUSA VZ-400 Terrestrial LiDAR Scanner
- Programming:** Proficient in - Python, Javascript, HTML5, CSS3, SQL; Experience in - Visual C#, VB.NET, Java, VBA