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Professional Summary: I currently work as a **GIS Manager** for a small agronomics company, performing **geospatial analysis and cartography**, developing web application capabilities with **ArcGIS Online and Web AppBuilder(Developers Ed.)**, and creating tools and Python scripts for **ArcGIS 10.4**. Previously, I have worked 2+ years as a **GIS applications engineer**, helping to design, build, test, and maintain web-based GIS solutions on both the client (front-end) and server side components utilizing modular **Javascript, Coffeescript, CSS/SASS, Bootstrap, JSON, and HTML5** on a **NodeJS framework**. I have some knowledge using **Visual Studio, ASP.NET, and ISS** to configure a **C#-based** backend as well as **Grunt, Apache Maven, NPM, and Bower** for package and module management. I am experienced in applying a variety of API's, libraries, and modules including **JQuery, Knockout, Flot, Leaflet, MapBox, ESRI API's, AWS API's, and Underscore** as well as developing and writing test code for **Mocha** and the **NightwatchJS** framework. I am most familiar using the **Agile** suite including **JIRA** and **Confluence** in conjunction with **Tortoise HG/Mercurial** and **Rhode Code** for version control and code reviews. In addition, I have developed personal projects on the **Ruby on Rails** framework and utilize **Git/Github** and **Heroku** to deploy applications using **Express** webserver and **Sockets I/O**.

As a graduate student I was trained to build and deploy both **ArcGIS (ArcMap, ArcServer, ArcViewer for FLEX with REST)** and **FOOS(OpenGeo Suite- QGIS, GeoServer, GrassGIS)** applications using **SQL** database configurations (**PostgreSQL** and some **MySQL**) to process and analyze **Big Data**. I am also versed in writing **Python** applications as widgets, extensions, and standalone programs within a geospatial context. Geospatial analysis and cartography were also key components of my educational curriculum, working within both a **Windows** and **Linux** environment. I am able to perform data conversion and implementation for a variety of geospatial data formats including **DEMs, Point Cloud Lidar, GeoJSON, Shapefiles, Feature Classes(Vector and Raster), NITF**, and many more..

Technical Summary:

Programming Language	JavaScript, Python, Ruby, some C# and PHP
Web Technology	HTML/HTML5, CSS/CSS3/SASS, JavaScript, JQuery, Bootstrap, AJAX, JSON/GeoJSON, NodeJS, Express, with limited knowledge of AngularJS and ReactJS
Database	PostgreSQL, some MySQL & MongoDB and RonR dB
IDE	Atom, Cloud9, PythonWin, Visual Studio/Code
Version Control & Testing Tools	Git/GitHub, Tortoise HG/Mercurial, RhodeCode, NightwatchJS, MochaJS
Web/Application Servers	Apache, Express, Python HTTP server
Project Management Tools	JIRA, Confluence
UI/UX Design Tools	GIMP, InfraView, some Photoshop/Illustrator
GIS Technologies	ESRI(ArcMap, ArcServer, ArcViewer, ArcScene, Web AppBuilder, ArcCollector, ArcGIS online, ArcGIS API's), OpenSource(QGIS, Grass, GeoServer, GeoExplorer), ERDAS/Hexagon(Imagine, eXploit/M.App X), Google(Map, Earth, API's), MapBox, Leaflet, OpenLayers

EDUCATION: **Master of Geospatial Info. Science & Technology (MGIST):** Graduated May 2015
Professional Science Master's Degree
NC State University-Raleigh, NC

Relevant skills and technologies learned:

- GIS server architecture and setup (ArcGIS for Server model, Open Source GeoServer model)
- Database administration and development (Access, ArcSDE, PostgreSQL/PG Admin, PostGIS and geospatial extensions)
- Applications design and deployment using software development lifecycle
- GIS web service applications design, and publishing (REST Services, ArcViewer for Flex and Javascript, WebApp Builder, GeoExplorer - opensource)
- GIS mobile applications development (API for Javascript/JQuery)
- Programming languages for batch processing and applications development (Python, HTML 5/CSS, Javascript, some C++ and Ruby)
- Census data research and capturing (TIGER/lines)
- CAD integration and georeferencing
- Data conversion and geocoding
- Geospatial terrain and hydrology modeling using DEM and point cloud Lidar
- Customized digital cartography
- Object-oriented image classification to develop land cover data
- Statistical data research, capturing, and analysis (SPSS, SAS)
- GIS Systems and mapping with ESRI-ArcGIS, Open Source GIS-QGIS and OpenGeo Suite, GRASS GIS
- Satellite image analysis and enhancement with FUSION and ERDAS
- Hydrology analysis and watershed delineation with ArcHydro, Whitebox, TauDEM

Master of Public Affairs (MPA): Graduated May 2012
Concentration in Local Government Management
UNC-Greensboro-Greensboro, NC

Relevant skills and technologies learned:

- Return on investment analysis (ROI) of capital investments
- Human resource management and organizational behavior analysis
- Budget development and analysis
- General accounting and legal documentation
- Strategic planning, risk, and needs assessment (SWOT)
- Request for proposal contracts (RFP)
- Grant research and proposal design
- Project/program evaluation

Paralegal Certificate (Associates Equivalent): Graduated May 2009
Central Carolina Community College-Sanford, NC

Bachelor's Degree (BA), Political Science: Graduated May 1997
UNC-Chapel Hill-Chapel Hill, NC

EXPERIENCE: GIS Manager – Tellus Agronomics – Jan 2018 to current

Managed geospatial analysis processes with a focus on improvement, innovation, and value-added production. Created Python scripts and model tools to streamline workflow. Developed web applications for field use with Web AppBuilder (Developer's Edition) and ArcCollector. Leveraged ArcGIS Online to serve web applications and create cartographic products. Worked directly with partners and clients to create agronomic analysis products for variable rate planting and fertilizer prescriptions.

Skills and technologies utilized for this job include:

- GIS Analysis using ArcDesktop 10.4
- ArcGIS Online
- ESRI Web AppBuilder(Developer's Edition)
- ArcCollector
- Python 2.7
- ArcToolbox Model Builder
- MS Access/Excel w/ Pivot Tables
- Process Street Workflow Management
- PostgreSQL/PostGIS

GIS Applications Engineer –IGS/Hexagon US Federal- Feb 2016 to Jan 2018

Planned, designed, developed, maintained, and improved web-based geospatial software solutions for commercial and government clients. Development based on customer requirements in collaboration with project managers and engineering team using the SCRUM/Agile process. Write code for initial development and system improvements. Perform manual testing of APIs and product throughout development and maintenance process. Write code for automated testing commands. Identify bugs and regression issues and recommend improvements in UX.

Skills and technologies utilized for this job include:

- Used the following frameworks for applications development: NodeJS, Ruby on Rails, .NET (w/Visual Studio). Limited knowledge of AngularJS.
- Library tools utilized for styling, functionality, and geoprocessing: Bootstrap, JQuery, Openlayers, Foundation, Skeleton, Knockout, Leaflet, Flot, + more
- Version Control/Repositories: Git/Github, Tortoise HG (Mercurial), Bitbucket
- Cloud based PaaS/IaaS used for deployment and enhancement: Heroku (platform-as-a-service), AWS
- Languages used for application coding and training: HTML5/CSS, Javascript, Coffeescript, Ruby, Python
- Other tools used for development or training: Apache Maven (for build automation), MongoDB and SQL Lite (database), NightwatchJS (automated Selenium driven testing framework), Postman (API testing)

Asset Management Software Analyst -IBM- March 2013 to Jan 2016

Analyzed asset management data for multiple public and private accounts. Worked with internal and external customers supporting IBM asset management tools. Managed asset scan information using database tools. Resolve asset scan problems for customers. Coordinated with global software team to update asset management data. Developed procedural workflows for scanning on new accounts. Update metrics database. Trained new asset management personnel.

Skills and technologies used for this position include:

- Working with customers to scan, evaluate, and track IT assets

- Provide support and software troubleshooting
- Asset Tracking & Planning (ATP) tools
- Tivoli Integrated Solutions Console
- IBM SigBank
- TRAILS (asset scanning alert tools)
- GACDW, CMDB, GAPdB, Siebel and BRAVO (asset database tools)
- TAD4D/TAD4z asset management consoles
- SOCKS Open Client tool and PuTTY VPN
- Comparison and analysis of large volumes of data using advanced spreadsheet analysis (VLookup function and spreadsheet macros)

Software Development Project Lead–IntraHealth (NCSU)–Jan 2015 to May 2015

Led project to develop web mapping application that tracked attacks on healthcare workers around the world. Performed database design, implementation and software development using open source GIS tools (OpenGeo Suite with QGIS and GeoServer, and PostgreSQL database). Oversaw database migration from Windows to Linux server environment.

Skills and technologies used for this position include:

- Project Management
- Platform Migration (Windows to Linux)
- Database Management(PostgreSQL server)
- Open Source GIS analysis and applications deployment(QGIS, GeoServer, AJAX)

Research Analyst- Lee County EDC-July 2012 to March 2013

Researched and managed economic development data using EDIS and TAcquire. Cultivated data layers for economic development GIS database. Worked with clients to obtain economic development grants. Developed structural reorganization plan for the organization. Created drafts for development grant proposals.

Intern- IT Services Department: City of High Point, NC–May 2011 to Aug. 2011

Developed ROI analysis for million dollar IT investment (Citrix virtual systems). Conducted cost-savings and performance-benefit evaluation.

Intern- Systems Projects: City of High Point, NC–June 2010 to Aug. 2010

Conducted needs assessments and created RFP documents for document imaging investment. Researched federal grants and alternative funding sources for systems project proposals.

Independent Contractor: Self-Employed – Feb. 2005 to Jan. 2010

Worked in various capacities from IT to construction. Worked directly with customers to fix various IT issues including OS and software installation and network/router setup and configuration.

Campaign Coordinator- United Way of Lee County: Sanford, NC–June 2004 to Jan. 2005

Coordinated fundraising activities, media relations, public speaking engagements, and events planning. Gave fundraising speeches before large corporate and public donors.

Independent Contractor: Self-Employed – May. 2001 to May 2004

Worked in various capacities from IT to construction. Worked directly with customers to fix various IT issues including OS and software installation and network/router setup and configuration.

Software/Hardware Test Technician-IBM/Tivoli: Durham, NC–July 1998 to April 2001

Tested networking hardware using scopes and power surge simulation devices. Conducted routine computer maintenance and repair and installed/updated OS and applications at user level. Transferred data using FTP and TCP/IP protocols. Tested network management software over various OS flavors (Windows, Unix, AIX, Linux), uploaded new builds, patches, and fixes to Tivoli GEM (Global Enterprise Management) product. Tested Websphere transaction security application and certificates against similar products for compatibility. Uploaded new builds, patches, and fixes. Maintained test records for testing work plan. Coordinated with international customers on compatibility and compliance issues.

SGT/E5- NC National Guard–Aug. 1991 to July 1997

13 B- Field Artillery Specialist.

71 L-Administrative Specialist.

Public Affairs NCO (Troop Command), personnel management, photographer.

ACTIVITIES:

MPA Student Alliance (UNC-Greensboro): Vice President 2010 to 2011

National Honor Society (NC State): May 2014 to 2015

Rhine Research Center: 2014 to 2017

Order of the Temple of the East: 2014 to present (Past Treasurer – 2016-2017)