

TECHNICAL SKILLS

- GIS: ArcGIS Desktop, ArcGIS Server, QGIS, GRASS GIS, GeoServer
- GPS: Trimble Pathfinder GeoXT, Trimble R10, Pathfinder Office, Terrasync, ArcPad
- Remote Sensing/Lidar: ERDAS Imagine 2015, Quick Terrain Modeler, QCoherent LP360
- *UAV/UAS:* Trimble Aerial Imaging, Agisoft PhotoScan
- Development: HTML, CSS, ArcGIS API for JavaScript, JavaScript, Python
- Databases: Oracle, PostgreSQL, ArcSDE
- Open Source OS: RHEL/CentOS, Ubuntu
- Other Software: Google Earth Pro, Adobe Photoshop, GIMP

PROFESSIONAL EXPERIENCE

Theorem Geo Associates Engineering- Raleigh, North Carolina

May 2015 – Present

Director of GIS/Principal Partner

- UAS Projects Provide Professional Land Surveyor and technical oversite for volumetric and orthophoto product generation.
- Land Services GIS Web Tool Manage team of developers to ensure project time and cost goals are met for the Duke Energy Real Estate, Environmental, Meteorology and Lake Service group ArcGIS Servers, database and JavaScript Webtools. Work with stakeholders and developers to determine and create advanced functionality to meet business needs.

Duke Energy - Raleigh, North Carolina

July 2009 – May 2015

GIS Administrator/Project Manager

- Lidar Pilot Projects Managed several pilot projects to establish a cost effective approach to direct vegetation work and collect infrastructure assets. Worked with internal stakeholders to build the business case to expand the effort to cover the six state Duke Energy territory.
- ROW Easement Mapping Project Planned and supervised project to digitize real estate
 documents. Wrote and reviewed RFP, approved invoices and managed project financials.
 Documents were georeferenced and digitized into a GIS database. These polygons were
 published to a web map where users could retrieve attributes and digital documents.
- NERC Lidar Line Rating Verification and Recovery Project Technical Lead for a \$120 million Lidar project. Built and presented business case for transmission GIS system to company executives. Worked with Esri and contractors to setup and deploy ArcGIS Servers. Designed and populated GIS database with 10 million features. Created custom web applications with Flex, JavaScript, HTML and CSS.
- Transmission Vegetation Management System (TVMS) Administrator for TVMS program software and hardware. Developed and tested mobile, touchscreen and voice recognition applications for helicopter and ground surveys. Created reports for compliance, audit and financial forecasting.

Center for Geographic Information & Analysis - Raleigh, North Carolina January 2009 - July 2009 Project Manager, Contractor

North Carolina Master Address Database for the 2010 U.S. Census - Provided project
management support for the CGIA Master Address Dataset Program. Responsible for workflow
development, resource tasking, team meetings, metadata population and GIS troubleshooting.
Developed automated Python tools to collect data and standardize it to FGDC format in a
multiuser GIS database.

Red Hat - Raleigh, North Carolina

March 2007 – December 2008

GIS Specialist, Intern

• Open Source Potential Index, Interactive Map - Created an online JavaScript map of Open Standards legislation and regulations by country. Collaborated with academic community on development of an "Open Source Potential Index" GIS database. All work was accomplished with Open Source software within a Linux environment.

Parsons - Raleigh, North Carolina

March 2007 - December 2008

GIS Planner, Contractor

 North Carolina DOT - Produced and analyzed GIS data for environmental impact analysis and community studies. Managed multiuser GIS databases, facilitated public meetings and prepared technical documents and reports.

HSMM - Cary, North Carolina

March 2005 - February 2007

GIS Analyst

• FEMA Flood Insurance Studies - Produced digital and paper flood insurance rate maps from engineering and Lidar survey data. Member of a GIS team responsible for coverage generation, table attribution, data projection, conversion and analysis.

Woolpert - Dayton, Ohio

January 2003 - March 2005

GIS Analyst

City of Farmington Hills Storm Water GIS Conversion - Created a storm water GIS from as-built
and construction drawings. Data conversion consisted of georeferencing scanned as-built
drawings and digitizing them into a multiuser GIS database while adhering to strict QA/QC
standards.

VOLUNTEER

Giscorps

May 2010 - August 2013

Digitizer/Data Entry Technician

• North Korea Mission - World Food Program (WFP) and Information Management and Mining Action Program (iMMAP) project to digitize and create GIS data layers from Soviet topographical map sheets. The resulting datasets will be used by UN agencies for humanitarian activities.

PROFESSIONAL LICENSES

- North Carolina Professional Land Surveyor License # L-5173
- North Carolina Real Estate Broker License # 257617

EDUCATION

North Carolina State University

December 2017

Master of Geospatial Information and Technology

University Of Cincinnati Bachelor of Arts, Geography March 2002

Geography Club President *University of Cincinnati*

January 2001 – January 2002