Chip Weir

GIS Programmer/Analyst

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Oct 2023 - Present

PROFESSIONAL EXPERIENCE

GIS Programmer/Analyst

RINA North America

Responsibilities consist of developing python scripts and data pipelines, conducting spatial analysis, consulting with clients to determine project requirements. See the "Project Experience" section below for more details.

Jr. GIS Analyst Jan 2022 - Oct 2023

Patrick Engineering Inc.

First position out of undergraduate school. Started as an intern and transitioned into a full-time role. Worked on a variety of geospatial projects. See the "Project Experience" section below for more details.

GIS Technician Oct 2022 - Mar 2023

Capitol Reef National Park

The position was through SUU (Southern Utah University) and the IIC (Intergovernmental Internship Cooperative). Some responsibilities included: trail mapping with high-accuracy GNSS receivers, creating web and field maps for field data collection, creating a recreation routes web map for regular park law enforcement use and SAR applications, migrating legacy data to directories that adhere to current NPS standards, and weekly air quality monitoring station filter changes.

PROJECT EXPERIENCE

GIS services Nov 2023 - Present

Acciona Energy

- Served as the main analyst on the team and periodically led meetings.
- Trained on-boarding teammates and delegated work as needed.
- Utilized ESRI pretrained deep learning model for data extraction.
- · Conducted buildable area analysis and slope analysis.
- Developed ArcPy script tools to automate manual workflows.
- Created multiple PDF map layouts per client request.

GIS/Dev Services Sep 2023 - Present

Asplundh Tree Experts

- Developed an ArcPy script tool that converts parcel data to geoJSON according to user inputted county and parcel feature layers.
- Provided offline basemap consulting.
- Developed a python script that pulls domain information from AGOL feature services, truncates then
 inserts the domain info into a SQL table, cross checks the info with pre-exisiting tables, and then runs a
 SSMS stored procedure.
- Developed a suite of custom ArcPy script tools for a vector tile (.vtpk) creation workflow. A high-level overview of the workflow is as follows:
 - o Prepare input data for .vtpk creation
 - Set data symbology and visibility ranges
 - Create .vtpk's from prepped data
 - Upload .vtpk's and their folder structure to Azure blob storage

Script tool development, ETL automation, and model conversion

South Carolina Port Authority (SCSPA)

- Developed an ArcPy script tool that populates empty values in the ID field of the user-specified FL.
 - Includes a drop-down tool parameter that connects to the active Pro user's AGOL and lists all the FL's in their org.
- ETL automation consisted of taking client data and converting it into a custom schema.
 - o Developed a model dictionary that maps input features to target features.
 - Converted main Python script into an ArcPy script tool for use in ArcPro.
- Converted ArcGIS Pro model into an Arcpy script tool.
 - Added functionality for logging status messages to a .txt file and feature class archiving.

File conversion workflow automation

Jul 2023 - Sep 2023

Altice

- Created custom ArcPy script tools to automate manual workflows in both ArcPro and ArcMap.
- Populated data dictionary according to shapefile schemas.

Indoors facility imports and Viewer web app configuration

May 2023 - Aug 2023

Central Michigan University (CMU)

- Served as GIS Analyst for the project.
- Imported CAD facility data into Indoors schema.
- Configured an Indoors viewer web map and application to view campus facilities.

Gas utility as-built ETL (pilot)

Jun 2023 - Jul 2023

City of Monroe, NC

- Worked closely with the City's staff to determine GIS requirements for ETL and output deliverables.
- · Reviewed PDF As-Built documents.
- · Reviewed and submitted GIS feature class schema.
- Performed ETL process including manual heads-up digitizing of points and lines into GIS.
- Data entry of associated attributes into the schema, and other ETL processes.

Support engagement model

Jun 2022 - Apr 2023

ADP Resources

- Converted pre-existing geoprocessing models and corresponding ArcGIS Pro Tasks into ArcPy script tools.
- Automated various manual workflows.
- Provided various GIS support when needed by client.
- Served as primary liaison between the client and Patrick.

Clery geography and AED web apps

Jun 2022 - Oct 2022

High Point University (HPU)

- Served as GIS Analyst for the project.
- Mapped clery geographies and AEDs in HPUs ArcGIS Portal environment
 - Provided a set of GIS web applications for editing and viewing those features.
- Developed Clery geography and AED data models including domains and contingent values.
- Developed Clery reportable Dashboard.

Dec 2023 - Jul 2024

Massachusetts Department of Transportation

- Helped with survey vehicle routing by determining which roads were maintained by MassDOT through a series of queries.
- Collected and reviewed the appropriate types and attributes for end treatments, crash cushions, and barriers.
- QA/QC of routes covered, total progress, and any errors or issues based on coding during collection.
- Final production and cleaning of data into necessary file formats.

GIS services Jan 2022 - Mar 2022

City of Olathe, KS

- Worked closely with the City's staff to determine GIS requirements for ETL and output deliverables which included file geodatabases, shapefiles, and ArcPro Packages.
- Worked closely with the City's staff to determine the output location for GIS deliverables.
- · Reviewed CAD-based PDF drawings.
- Reviewed and submitted GIS feature class schema.
- · Performed ETL process including:
 - Conversion of CAD PDFs to Raster
 - Georeferencing of images in NAD83(2011) Kansas North-US ft (EPSG:6467) State Plane Coordinate System
 - Manual heads-up digitizing of linework into GIS
 - Data entry of associated attributes into the schema and other ETL processes
- Internal Quality Assurance and Quality Control (QA/QC) of digitized GIS data.

GIS Services Jan 2022 - Mar 2022

Illinois State Board of Elections

- Functioned as a sub-contractor to GIS Solutions INC.
- · Performed QA on district boundaries.
- Digitized line features and added attribute values to them.

EDUCATION

Bachelor of Science (BS) - Geography

Appalachian State University (2018 - 2021)

- · GIS Certificate
- Minor in Biology
- · Magna Cum Laude