Chip Weir

GIS Programmer/Analyst

678-670-3593 · work.weir@gmail.com · [LinkedIn](#)

PROFESSIONAL EXPERIENCE

GIS Programmer/Analyst   **Oct 2023 - Present**
Patrick Engineering Inc.

Have been working on projects with a greater focus on Python script development. 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 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

Script tool development, ETL automation, and model conversion   **Dec 2023 - Present**
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.
  - Developed a model dictionary that maps input features to target features.
  - Converted main Python script into an ArcPy script tool for use in ArcPro.
- Initially, an ArcGIS Pro model was being used to add two fields to a feature class and populate those fields with parameter values (set by the user).
  - Converted this model into an Arcpy script tool.
  - Added functionality for logging status messages to a .txt file and feature class archiving.

Vector tile package workflow automation   **Sep 2023 - Present**
Asplundh Tree Experts

- The client needed a workflow to create Vector Tile Packages (.vtpks) and upload them to Azure blob storage so that they could be retrieved by an API and used in their vegetation management app.
- Developed a suite of custom ArcPy script tools for the workflow. A high-level overview of the script tools is as follows:
  - 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
- The other three script tools (AggregateByIntersect, CalculateFeatureDensity, and RegionCreation) are standalone tools used outside of the .vtpk workflow.

GIS services   **Nov 2023 - Present**
Acciona Energy

- Served as the main analyst for the client and periodically led meetings.
- Delegated work to team members as needed.
- Conducted buildable area analysis and slope analysis.
- Developed script tools to automate a variety of workflows (Buildable area generation, Batch feature class to KMZ, Plat map layout export, Plat map KMZ export, Labeled centroid KMZ generation).
- Created multiple map layouts per client request.
  - Some used in an open house for stakeholder viewing.

File conversion workflow automation   **July 2023 - September 2023**
Altice

- Created custom ArcPy script tools to automate the following workflows in both ArcPro and ArcMap:
  - Shapefile to KMZ
  - KMZ to Shapefile
- Populated data dictionary according to shapefile schemas.

Indoors facility imports and Viewer web app configuration   **May 2023 - August 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)   **June 2023 - July 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   **June 2022 - April 2023**
ADP Resources

- Converted pre-existing geoprocessing models and corresponding ArcGIS Pro Tasks into ArcPy script tools.
- Automated the following workflows:
  - Multi-layer WBS code definition query change
  - CAD to GIS
  - Feature translation to client schema
  - Append translated features to client feature service
- Provided various GIS support when needed by client.
- Served as primary liaison between the client and Patrick.

Clery geography and AED web apps   **June 2022 - October 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.

MassDOT guardrail data collection   **May 2022 - October 2022**
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   **January 2022 - March 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   **January 2022 - March 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 - Geography
Appalachian State University (2018 - 2021)
- GIS Certificate
- Minor in Biology
- Magna Cum Laude