**Rachael Urbano**

*Fiercely Committed to the Well-Being of the Environment, Natural Resources, Urban Infrastructure,*

*Sustainable Energy*

Dedicated and hard-working professional with a Bachelor’s degree in Earth Science with a deep understating of the business operations and geospatial analysis. Robust history of geography environmental science and water resources field work to including conservation work in Italy. Well-respected for fostering an environment of teamwork and cooperation.

* Strong history in delivering complex projects, on-time and within budget despite demanding expectations, shifting priorities, and stringent deadlines. Coursework in geospatial analysis such as GIS, remote sensing, environmental geology, climate, and natural resource planning.
* Proven capacity to communicate to audiences of all sizes clearly and effectively, from a variety of cultural, economic, and educational backgrounds. This includes providing presentations and workflow documentation for a variety of projects.
* Excellent skills in data collection, interpretation, and geographical display.

**Education, Certifications and Professional Development**

**Masters of Science, GIS Development** | University of Wisconsin—Madison, Madison, Wisconsin (May 2022—present)

**Bachelor of Science, Earth Science** | California State University, Dominguez Hills, Carson, CA (August 2019)

CPR and 1st Aid Certified | OSHA 10 Certified| Skilled in ESRI software| Proficient in Adobe| SCUBA Open Water| California Naturalist

**Field Experience**

Pacific Gas and Electric, San Ramon, CA | November 2021—Present

**Business Systems Specialist**

Career position supporting the Vegetation Management Team with geospatial analysis. Provide support to the VM Tech Support team for data lifecycle management and several projects within scope, often time for CPUC or various regulatory agencies. Provides support to the VM Data Requests team for project analysis company wide. Some of the support provided is outlined below.

* Assists in the ongoing effort to transition the EVM data into OneVM.
* Aides in the EVM to Routine workflow that updates segment data with Meter Swap.
* Ongoing support includes associating EVM related data to the VMD related data, providing geospatial visuals that help teams make decisions regarding the integration of new systems.
* Ad-hoc and reoccurring requests for kmzs, gdbs, sql tables, queries for Power BI, excel tables with pivot tables, and various Jupyter notebooks using Python and SQL can be a part of the day to day workflow.
* Long term ongoing development within projects focused heavily on the use of Python scripts with defined functions to automate tasks. Some of them include, the archiving/deletion of vegetation tree point data in Oracle, and regularly performed workflow processes that are routine geospatial analysis with the SDE or larger data sources.
* Routine workflows performed on weekly to quarterly basis for Vegetation Management work, such as work carried out by various tree contracting companies throughout California. Updating county and city boundary maps with completed EVM power line work that is in scope.
* Formally, aided Wildfire Support creating web maps, apps, wall maps, forms and ArcPro projects. Often this requires accessing rest end webpages and editing using JSON. After wildfire season, there occurs debris management support for wood management. Ongoing support to previous year’s fires data requests.

MASON, BRUCE & GIRARD (PG&E contract), San Ramon, CA | June 2020 – November 2021

**GIS Analyst**

Assist in contract work for PG&E in Northern California assisting the vegetation management support team, using standard ArcGIS operations and scripted processes to manipulate and analyze geospatial data to support multi-resource analysis in support of planning.

* Automation via Python and SQL programming; Construct and maintain GIS databases.
* Data intake
* Preparation of mobile data schemas
* ArcGIS Online feature service publishing, maintenance, work flow development, and data modeling/management.
* Dashboard Metrics, data quality control and editing, data analytics and reporting

CITY OF ANAHEIM, Anaheim, CA | September 2019—June 2020

**GIS Analyst**

Contract position, brought on to develop workflows, applications, sites pages, and perform spatial analysis for inter-department needs.

Developed

* Plan and develop methods to integrate diagrams and pertinent building schematics into GIS database for emergency personnel in Fire Department and Police.
* Developed two internal use sites using HTML for COVID-19 Site for EOC, dashboard, tabular data, and graphs as well as a page for our Code Enforcement.
* Earthquake Hazard Preparedness App to help prepare for the Continuity of Operations Plan in the event of a natural disaster.
* Large use of GeoEvent Server using JavaScript, this includes setting up a means to automate large volumes of data from third party vendors performing fleet analytics. Developed raster data products, including lidar point cloud data, as well as DEM extraction to measure surface volume of areas of interest.
* Web application containing Demographic data for Council Member Jose Moreno.
* Suitability analysis of expansion of local transportation FRAN network, helped determined using analytical tools for locations of possible future stops. Market analysis reports done on site suitability, areas void of marketable services, and areas that were in need of service.
* Maintenance of hosted feature layers and services in Portal and Enterprise platform. Time management of a variety of several on-going projects.
* Sign inventory collector app that would allow field crews to maintain sign databases including new signage that goes up around the city, as well as sign conditions
* Setup file transfer protocol between vendor and dedicated server using C-Script and windows command to do remote downloads.
* Assisted in creating best practices for consolidating database sets and organizing data available, this includes best practices work flows.
* Working with Anaheim Police Department to develop newer CAD maps, as well as Vector Tiles basemaps for dispatch use.

CALIFORNIA STATE UNIVERSITY, DOMINGUEZ HILLS, Carson, CA |January 2018 –August 2019

**Researcher GIS Analyst, Water Resources and Policy Initiatives**

On a grant by the USDA, WRPI is a consortium of the California State Universities geared towards finding solutions and completing research in a water related field. Hand selected by my professors to work on a watershed stream analysis in the Southern Sierra Nevadas our research sought to quantify the rivers and streams gauge measurements in their corresponding watershed.

* Research sought to analyze areas that are being monitored and evaluated gauges of certain streams to collect data that would help in support planning and stakeholders downstream.
* Use of web for resources and data collection, database and table formatting, use of remote sensing data, ArcMap, and federal data sources such as USGS, NHD, Envirostor etc. NHD datasets were used with ArcHydro to calculate watershed areas and measure the deficiency in stream monitoring in the Southern Sierra Nevada Mountain Range.
* Compiled various sources of water data and cross referenced active boundaries and owners e.g. Army Corps Engineered dams. Created model to automate stream watershed analysis functions. Analysis sought to display the discrepancies in data sources as well as question the existing bureaucracies that manage the water supply in this region.

UNITED STATES FOREST SERVICE, Sylmar, CA | June 2018 – November 2018

**Field Ranger**

Participated in a seasonal internship as a Field Ranger on the Angeles National Forest at the Los Angeles River District in conjunction with

The California Fish & Game commission and the Bureau of Land Management to study native species threatened, endangered, or protected.

* Assisted in the organization of visitor information delivery and scientific field work and worked at events around Los Angeles and at the national level, largely aimed towards fire safety.
* Supported wildland fire department by completing GPS surveys and use of GIS to create burn perimeters of the recreation sites effected to help receive aid after fires in previous seasons. These maps were then overlaid with raster data to show the surface area of the sites.
* Public outreach to local organizations and schools that sought to develop links with local communities, schools, and interest groups. Helped with digital media selection for Angeles National Forest application.
* Assisted in choosing the appealing imagery and user friendly maps for the urban forest visitor centers located around the forest.

CITY OF CARSON, Carson, CA | December 2016 – June 2018

**GIS Technician**

Worked closely with planning and engineering departments to make maps needed for the city.

* Interpreted data for use in city planning initiatives including parcel lot information, general maps available to public, site surveying for future investment (use of drone and 3d technology), public services of the city and industries within such as planning, parks and recreation.
* Maintained sign inventory (handicap placards, stop signs, speed bump signs) for various DoT projects generating revenue for the city.
* Generated maps used for planning meetings and developments in the city and revenue generation.
* Produced custom map products and data for multiple departments including Public Works and Planning.
* Created and maintained geodatabase features such as SCE electrical lines (including substations near the ports and rails in the city), variety of water lines for various water companies, oil lines, and other infrastructure.
* Use of as-builts, CAD drawings, and other hand written documents for city infrastructure were regularly used to assist in the mapping process.
* Interpreted data for use in city initiatives including parcel lot information, general maps available to public.
* Assisted in Census data management for collecting new addresses to submit to the Census for future population counts, including checking data accuracy.
* Created data driven pages mapbook for a main street in city that was subject to controversy due to unmapped abandoned oil lines that drove project costs up. Mapbook presented data in clear insightful way to give to personnel and assist in the construction and planning of revitalizing Carson Street.

SEA LAB, Redondo Beach, CA |March 2016 – June 2018

**Educational Instructor**

Led tours of aquarium facility to children in school programs (aged primary to college), as well as public outreaches to

schools, in a Los Angeles Conservation Corps partnership program with West Basin Municipal Water District**.**

* Lectured on topics related to conservation included local marine life, water conservation, and marine-based science.
* Taught water conservation at West Basin El Segundo Facility to schools and groups throughout Los Angeles County.
* Led field trips for fishing, beach conservation and clean up, the food chain and storm management.
* Gave tours to people of all ages using the basis of the environmental stewardship and water wise practices.