

Francis Polignano

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IT professional pursuing career as a Web Developer or Python Developer. Areas of experience include Web development and Geospatial data analysis/management using Python.

Work Experience:

Leidos – Geospatial Analyst

2016-Present

- Process Aerial imagery from a raw format to a mosaic, orthorectified final product using LIDAR.
- Write scripts using Python to improve and automate workflow. Leverage open source libraries GDAL/OGR.

BAE Systems – Geospatial Technician

2015-2016

- Feature extraction and conflation of large datasets.
- Scripting with Python/Arcpy to automate tasks.
- Web mapping using HTML/CSS/JavaScript/Python and various API's

Education:

Villanova University

B.S.: Environmental Science – 2014

Related Experience:

Personal Website Projects – 2014-2017

While learning web development, I created two project websites – franpolignano.com and intelligencemapping.com. Both websites use HTML/CSS/Bootstrap/JavaScript and PHP. They also feature two different maps, one utilizes the ArcGIS API and the other uses the Mapbox/leaflet JavaScript libraries. The maps are overlaid with GeoJSON data to create an interactive choropleth map.

Digital Elevation Model – Villanova University Campus – 2014

I created a Digital Elevation Model of Villanova's Campus to identify areas where fertilizer runoff would accumulate. I constructed roughly a 100,000 point position and elevation dataset using a Trimble GeoExplorer 6000 series GPS. As I walked campus in passes of approx. 5 feet, position and elevation data was logged in 1s intervals. Using Trimble Pathfinder Office, I post-processed the files using a local base station and exported them to .shp for use in ArcGIS 10.x. In ArcGIS I created both raster DEM and TIN models. In addition to the GPS derived DEM, I used a LIDAR dataset found online to create a second set of DEM's in an effort to compare the accuracy of the two methodologies.

Technical Skills:

Python - Use Python on a daily basis to improve and automate workflow. Heavy geospatial emphasis.

Geospatial Software – Very familiar with both ArcGIS and Open source QGIS, GDAL/OGR software.

HTML/CSS/PHP/JavaScript - Created a simple website from scratch that is connected to a MySQL database.

Linux/Web Servers – Host websites on a VPS running LAMP stack. Familiar with Putty, FileZilla for SSH.