# Timothy D O'Leary

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### **O**BJECTIVE

To leverage my 4+ years of professional experience in a technical position that will challenge me and allow me to grow my current skills, while also learning and acquiring new ones.

### CLEARANCE

Active TS/SCI

### **E**XPERIENCE

# Staff Geospatial Analyst, DigitalGlobe June '12 - Present

- + Implementing, managing, maintaining and upgrading an enterprise open source software stack, called MapEdit, in an Amazon Web Services environment. MapEdit is a crowdsourced, mapping web application built upon the OpenStreetMap open source software enterprise. MapEdit is currently used by analysts to enhance infrastructural and volunteered geographic information (VGI) data around the world on multiple government and open networks, with dozens of active daily users. Duties include learning and implementing Amazon's Virtual Private Cloud (VPC) tools to create a secure environment to host applications, managing Elastic Compute Cloud (EC2) instances, and preparing Amazon Machine Images (AMI) for data quality and consistency management. Deployed applications include technologies such as python, ogr2osm, osm2pgsql, osmosis, Node, PHP, Nominatim geocoder, OpenStreetMap Web API, MapBox iD Editor, Ruby on Rails, AWS command line, redmine, and github.
- + Provide continuous assistance in the management and implementation of new software capabilities on an open source software stack, MapEdit, in support of a government client at a secure site. Consistent interaction with the customer in regards to priority of software implementation, expectation of software capabilities, and running software demos. Frequently requested by leadership and customers to lead software demonstrations and highlight new capabilities to existing and potential customers.
- + Assist in onboarding and training of new hires; includes technical onboarding and introducing them to software lifecycle support using and open source approach
- + Implemented a solution for performing geocoding across multiple data sources and publishing the tool as a service in a secure deployment configuration. The project involved implementing a geocoder for a customer's offline high-side environment. The integrated geocoder is used by analysts daily, receiving batch requests through REST and individual requests through MapEdit.
- + Conducted research on an IARPA funded project using map algebra for distributed (cloud-based) geospatial processing. Some duties included writing python/ArcPy scripts for batch image processing and batch queries of CSV files in a system that utilized Hadoop to save processing time as well as using Geospatial Data Abstraction Library (GDAL) for tasks including raw data processing, mosaicking imagery, and vector/raster data preparation.

# Geospatial Analyst Intern, Marine Corps Intelligence Activity Summer/Winter Intern 2011

- + Trained alongside government civilian and active-duty Marines to create dozens of compound maps directly supporting operations in Afghanistan. Products were used by active-duty Marines overseas for mission planning and feature point-of-interest (POI) detection during active operations.
- + Perform map production using various techniques including versioned editing, feature creation, cartographic representation via PLTS Grid Manager, data management, and quality control
- + Perform map dissemination tasks including data conversion to multiple formats and positioning files and products for distribution to end users

#### **E**DUCATION

## **Self Directed**

Docker for DevOps - Udemy / March 2016 Complete Python Bootcamp - Udemy / 39% complete An Introduction to Interactive Programming in Python - Coursera / Oct 2013

Virginia Polytechnic Institute and State University. 2012

Bachelor of Arts, Geography - Geospatial Analysis.

## **S**KILLS

- ❖ ArcGIS (9.x & 10.x)
- Amazon Web Services Management
- Amazon Command Line
- Ruby on Rails
- Nominatim Geocoder
- OpenStreetMap
- Postgresql/PostGIS
- Python
- Git command line utilities (commit, push, pull, rebase, etc)
- Github

- Osm2pgsql
- Osmosis (command line Java application)
- Open Source Software Deployment / Development
- ❖ Virtual Private Cloud (VPC) Design
- Raster Data Manipulation and Analysis
- Vector Data Ingestion
- Raster Image Tiling
- ❖ QGIS (1.8-2.14)
- Ubuntu 12.04 Current
- Centos 6.5 Current