

# Mike W Roberts

## At a Glance

Data Nerd and Programmer skilled in python, data & spatial analysis, web development, cartography, and graphic design. Dedicated professional with management experience and voracious work ethic. Comfortable with command line interfaces, multiple programming languages, and also Mandarin Chinese. Enjoys code, mathematics, science-fiction and long walks on the beach.



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## Key Attributes

Open-Minded

Autodidact

Team Player

Detail Oriented

Sense of Ownership

Analytical

Curious

Organized

## Project Highlights

### Django Heroku Website

Custom HTML, CSS, JS front-end with a Django backend served up by the Heroku platform and connected to a PostgreSQL database. Various apps in production. This project required learning Git and version control to push to Heroku, configuring Django and Heroku, and using environment variables to separate dev and production.

### GIS Land Use Model Buffer Analysis Script

Custom tool originally built in ArcMap ModelBuilder, then rebuilt in QGIS and combined with a custom Python script to create a new tool that finds the required buffer around one boundary to achieve a given area within a secondary boundary using a binary search algorithm.

### Mapbox GL JS Web Map Application

An interactive component of a climate-change-related GIS research project. Uses Mapbox's javascript library to render custom geographically defined svg objects with GeoJSON formatting. Interactivity written in standard Javascript.

### Grid Map Procedural Generator

Program that could be used to generate a tile-based map for various end-uses. "Rooms" generated with random shapes, sizes, and placements with an edge-detection moving-window algorithm running afterwards to delineate "Walls". Originally built with C# and connected to Unity to use textfile to generate 3d blocks, ported to Python to add to Django site.

## Tools

Python 3

HTML5

CSS3

Javascript

Django Framework

Heroku PaaS

PostgreSQL

Adobe Creative Suite

ArcGIS

QGIS

Microsoft Office

Command Line

## Skills

Programming

Web Development

Data Analysis

Statistics

Cartography

Spatial Analysis

Graphic Design

Management

Interpersonal Relations

Teamwork

Training

Mandarin Chinese

## Education

B.S. Computer Science

A.S. Science Transfer

H.S. Diploma

Certificates:

Geospatial Info Systems

Oracle Database SQL

Axelos ITIL Foundation

CompTIA Project+

CIW Site Dev Associate

Permaculture Design