

Schuyler Williams

skywilliams@gmail.com • (262) 374-1086 • schuylerwilliams.github.io

4725 Sheboygan Ave, Apt 234
Madison, WI 53705

Professional Summary

A geographic expert looking to expand my role in management and development; equipped with knowledge and experience in computer programming, statistical analysis, application development, team coordination, consultations, and GIS analysis.

Experience

GIS ANALYST

CONTINENTAL MAPPING CONSULTANTS // SUN PRAIRIE, WI // 2017 - CURRENT

- Developed multiple python scripts which reduced workflow time by 95%
- Helped develop and revise geoprocessing workflow
- Developed tool to automatically handle 87% of a specific workflow task
- Invited to join quality control team
- Analyze aerial imagery and perform geographic analysis
- Obtained Secret Clearance

GIS DEVELOPER

UW - SEA GRANT // MADISON, WI // 2016-2017

- Collaborated with Wisconsin State Cartographers Office
- Developed web mapping application
- Updated existing application as well as design new functionality
- Designed wireframes and implemented new user experiences
- Managed project framework and design

GIS LAB MANAGER

DEPARTMENT OF FOREST AND WILDLIFE ECOLOGY // MADISON, WI // 2016-2017

- Communicated and resolved issues
- Oversight and training of all new hires
- Developed procedure for quality control of completed work
- Delegated and coordinated responsibilities
- Ran monthly meetings
- Maintained lab website and developed mapping applications

GIS ECOLOGICAL TECHNICIAN

DEPARTMENT OF FOREST AND WILDLIFE ECOLOGY // MADISON, WI // 2015-2016

- Digitized and attributed land cover maps
- Responsible for updating progress map
- Created point and line features on georeferenced map images
- Worked as a team to achieve efficiency and deadline goals

STUDENT SUPERVISOR

UW - MADISON UNION // MADISON, WI // 2014-2015

- Hired as custodial, promoted to supervisor within 3 weeks
- Responsible for shift reports and custodial workers
- Resolved issues that arose with custodial workers
- Light cleanup of offices and building where needed

Projects

FOREX BACKTESTING PROGRAM

Developed a python based program that runs through a VPS and controlled from a command line interface. The program takes in a trading algorithm set with any trading strategy the user inputs, and then performs a backtest on daily, monthly, or yearly tick data for forex currency pairs.

SATELLITE IMAGERY AGRICULTURAL ANALYSIS

I have performed multiple imagery analysis on satellite imagery of crop fields using supervised and unsupervised classifications which can then be used as input into a machine learning algorithm to classify many different images. My initial intent was to predict future crop yields from this data, by gauging the health of this seasons crops.

TWITTER CRISIS MAP

I developed a web mapping application that pulls geotagged tweets from the Twitter API based on specific code words. The results of those tweets are then stored in a JSON file, which is referenced by an online map. With this application, I was able to see geotagged tweets pop up across the world during Hurricane Sandy, while searching for the code words, "hurricane" and "Sandy".

CROWD-SOURCED DISEASE TRACKER

I have developed a crowd-sourced disease tracker, using open-source GIS libraries and an SQL database. The initial project was for a class, however I believe that with the right integration the application could be very useful for professionals in the field. A user is able to report a case of a disease from anywhere in the world, which is then viewed in real-time in the application.

INTERACTIVE RECREATIONAL DATABASE

I am currently developing an interactive recreational database; i.e., an online portal that allows access to all kinds of recreational activities and recreational areas across the country. I have currently started testing the interface in Wisconsin, and am switching the database from a SQL backend to a NoSQL framework for efficiency and speed.

LOCAL EVENT APPLICATION

I am currently developing a local event application. The web app uses crowd-sourced GIS techniques integrated with a NoSQL database for real-time updates for events created by users.

Education

BACHELORS OF SCIENCE - GIS/CARTOGRAPHY AND GEOGRAPHY

UNIVERSITY OF WISCONSIN - MADISON // MADISON, WI // 2017

Skills

SQL • NoSQL • **PHP** • Python • **HTML/HTML5** • CSS/CSS3 • **Javascript** • Java • **AJAX** • Arcpy • **GDAL** • OGR • **Leaflet** • Openlayers • **Mapbox** • Esri ArcGIS • **QGIS** • Envi • **PostgreSQL** • Geoserver • **Mapserver** • Firebase • **Adobe Illustrator** • Adobe Photoshop • **Adobe Acrobat** • Gimp • **MS Office**