

# 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 enter the world of finance; equipped with knowledge and experience in aerial imagery extraction, computer programming, statistical analysis, application development, and supervisory roles.

---

## Experience

### GIS ANALYST

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

- Developed multiple python scripts which increased workflow speed by 700%
- 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.

### **QUANTITATIVE FOREX ROBOT**

Researched the forex market and developed a trading strategy for the EUR/USD currency pair. The trading strategy has a profitable backtesting result, and is run entirely through python; entrance and execution are fully automated.

### **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**

**Forex • Equities • Options • Futures**