

Violet Cunningham

Geospatial Developer and Cartographer

vcunningham1023@gmail.com

vvcunningham.com

Professional Summary

Experienced developer and cartographer. I have combined my knowledge of coding with my knowledge of GIS technologies to make static and interactive maps for many purposes. I have a passion for using geospatial data to generate insight and solutions for others. Please see my website for write ups of professional and personal projects.

Work Experience

GIS Python Developer

USPS - Contracted through ECS

March 2022 - Present

- Independently working on geospatial automation needs for various projects. Often includes Python for data collection and API interactions followed by Python or Oracle connections for web layer updates
- Python automation of tasks to reduce required time and to reduce the manual effort required
- Assist with data QC through automation to check Big Data collections and exports

Data Extraction Analyst

Cyclomedia

August 2021 - December 2021

- Worked in a full pointcloud environment to extract desired features for clients
- Performed QA on manual and automatic LiDAR extractions
- Manipulated a geospatial database for automation and QA

Student Cartographer/Developer

UW-Madison Cartography Lab

June 2020 - May 2021

- Worked independently on cartography/GIS projects
- Worked to update web-based cartography examples from Flash to modern frameworks
- Web-based development in JS using Leaflet and D3

Technical Experience

- Esri ArcGIS Desktop and Pro
- Experienced with Python and relevant geospatial libraries (i.e. GeoPandas, arcpy, arcgis, GDAL, Scikit, etc.)
- Databricks
- ESRI Portal and Portal/GIS server API
- Extracting and analyzing geospatial data from various data types

- Adobe Photoshop & Illustrator
- Strong grasp of CS theory (optimization, algo design, discrete math, etc)
- Javascript (HTML/CSS) for web-based projects
- React, Flask, and AWS
- Previously worked with: Java, C, C#, C++, R, VB

Education

UW-Madison, May 2021

Bachelor of Science

Majors: Cartography/GIS and Computer Science

Relevant Courses:

- Introduction to: Programming, Cartography, GIS, and Geocomputing
- Database Management Systems: Design and Implementation
- Data Structures
- Algorithms
- Computer Graphics
- Machine Organization and Programming
- Artificial Intelligence
- Discrete Math
- Programming Languages and Compilers
- Linear Algebra and Differential Equations
- Advanced Geovisualization and Interactive Cartography
- Geospatial Big Data and Analytics
- Graphic Design in Cartography
- Geospatial Technologies
- Geography Capstone and Undergraduate Thesis

Awards/Achievements

- May 2020. Invited for presentation as team leader of a group of four students on "Tambopata: Protecting Forests and Empowering Communities; an Interactive Web Mapping Exercise" in the 2020 Teaching and Learning Symposium, UW-Madison. [Cancelled due to COVID outbreak]
- May 2020. Nominated for Cross-campus International Studies Student Award for "Tambopata: Protecting Forests and Empowering Communities; an Interactive Web Mapping Exercise"