

OLIVIA ZHANG

oliviazhang@ufl.edu • (786) 512-7993 • Portfolio: via-zhang.github.io

EDUCATION

University of Florida

Expected: May 2026

Bachelor of Science, Geography and Data Science

GPA: 4.0

- Pursuing Certificate in Geographic Artificial Intelligence and Big Data
- Geography Department Ambassador, Center for Undergraduate Research Ambassador

RESEARCH EXPERIENCE

Portfolio: via-zhang.github.io

Geospatial Digital Informatics Lab

Geography Department, University of Florida

Undergraduate Research Assistant

September 2024 – Present

- Developing interactive dashboard visualizing citizen science data about mosquito habitats, designed to raise awareness and encourage more participation in open-source data collection for NASA GLOBE.
- Planning educational museum exhibit in collaboration with citizen science nonprofit, SciStarter.

AI for Bio/Cultural Diversity Lab

Florida Museum of Natural History

Undergraduate Research Assistant

January 2024 – Present

- Fine-tuned object detection models in Python to identify archaeological sites in satellite, aerial, and LiDAR imagery, helping better document and track these sites.
- Applied machine learning in R (k-means clustering and random forest classification) to classify islands in Sentinel-2 satellite images.
- Prepared training images for machine learning using ArcGIS Pro, Python, and Roboflow.

Research Experience for Undergraduates

University of Maryland, Baltimore County

Undergraduate Researcher

June 2024 – August 2024

- Developed workflow incorporating regression and clustering in Python to improve estimates of rainfall rate from weather radar data while generating interpretable equations.
- [Published paper](#) in IEEE BigData conference proceedings and presented at the American Geophysical Union meeting.

Election Lab

Political Science Department, University of Florida

Undergraduate Research Assistant

February 2024 – May 2024

- Cleaned and analyzed 15+ million rows of data in R to understand voter turnout across Florida, visualized through an interactive story map.
- Mapped voter turnout and election results by precinct using ArcGIS Pro and QGIS.

PROFESSIONAL EXPERIENCE

Fire Neural Network

Gainesville, Florida

Intern (May 2022 - March 2023), *GIS Analyst* (March 2023 - Present)

May 2022–Present

- Created interactive ArcGIS dashboards displaying real-time lightning and wildfire data used by firefighters, along with instructional videos and user guides explaining how to use the dashboards.
- Mapped temperature, soil moisture, and vegetation to analyze fire risk; used Python to automate mapmaking in ArcGIS Pro.
- Applied open-source AI model (Segment Anything Model) to automatically load satellite imagery and segment burned land in the aftermath of wildfires.

trubel&co

Remote

Volunteer (December 2023 – December 2024), *Programs & GIS Intern* (Present) December 2023–Present

- Conducting outreach with partner organizations for *Mapping Justice: Gulf Coast*, a summer program teaching high school students how to leverage GIS, data, and design to address environmental issues.
- Helped host *EcoGIS*, 3 virtual workshops for young professionals about GIS for environmental justice.
- Developed a workshop to teach high school students how to analyze and map climate data with Python.

Center for Diverse Leadership in Science

University of California, Los Angeles

Early-Career Fellow

December 2024–Present

- Planning curriculum for *GIS for Community Health*, a program teaching community health promoters, recent graduates, and high school students how to map issues impacting their communities using QGIS.

Institute of Food and Agricultural Sciences Extension

University of Florida

Intern

January 2024 – May 2024

- Cleaned survey data about well water in Excel and built ArcGIS Dashboard of survey responses aggregated by county.
- Wrote literature review about climate-smart agriculture to inform educational programs for farmers.

VOLUNTEER EXPERIENCE

Data Science for Sustainable Development

August 2024 – Present

President and Co-Founder of student chapter at University of Florida

- Organized student teams to support nonprofits, researchers, and social impact organizations with data analysis, GIS, and web development projects.
- Managed communication with partners and assigned tasks to teams of 10+ students.

Florida Community Innovation

July 2023 – Present

- Researched geospatial datasets to assess and map gentrification in Gainesville, Florida.
- Created interactive story map about sea level rise for an in-person event about climate gentrification hosted in Miami, encouraging open discussion about climate solutions.

Conscious Kitchen

August 2023 – May 2024

- Built dashboard of organic farms in California to connect schools with local farmers using ArcGIS, along with a story map about the importance of nutritional food for youth.
- Designed posts about organic produce and calculated costs of organic ingredients.

Our Climate

September 2021 – May 2023

- Researched Florida bills about renewable energy, climate justice, and heat illness prevention.
- Spoke with legislators in Tallahassee and Washington, D.C. about climate action and clean energy bills.

ACCOMPLISHMENTS

- **UF Gulf Scholars** (2025), University of Florida. Will receive \$1,200 scholarship for summer internship with nonprofit trubel&co to host GIS program for high school students, *Mapping Justice*.
- **Featured Artist** (2024), *Climate Storytelling 2075* Anthology. Artwork with geospatial visualizations of sea level rise in Florida. Displayed in Long Island City, NY at the Queens Council on the Arts. via-zhang.github.io/climate-storytelling
- **Archaeology “Dirty Trowel” Award** (2024), Florida Museum of Natural History. Awarded \$2,000 for contribution to research (using AI to detect archaeological sites), given to one student annually.