## **OLIVIA ZHANG**

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#### **EDUCATION**

### Bachelor of Science in Geography and Data Science

May 2027 (Expected)

University of Florida - Gainesville, Florida

**GPA: 4.0** 

- Pursuing certificate in Geographic Artificial Intelligence and Big Data
- Involvement: Data Science for Sustainable Development Gainesville (Co-Founder & President), Geography Department (Ambassador), Women in Computer Science and Engineering (Member)

#### **SKILLS**

- Geographic Information Systems (GIS): QGIS, ArcGIS Pro, ArcGIS Online (Dashboards, Experience Builder)
- Programming: Python (scikit-learn, ArcPy, GeoPandas), R, Google Earth Engine, JavaScript (React, Leaflet)
- Design / Communication: Canva, LaTeX, Microsoft Office, Google Suite, WordPress

### **WORK EXPERIENCE**

## FIRE NEURAL NETWORK

Gainesville, Florida

Intern (Summer 2022), GIS Analyst (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.
- Labeled burned land from wildfires in 300+ satellite images, creating accurate shapefiles for research and analysis.

### AI FOR BIO/CULTURAL DIVERSITY LAB

Florida Museum of Natural History

## **Undergraduate Research Assistant**

January 2024-Present

- Prepared training images for machine learning using ArcGIS Pro, Python, and Roboflow.
- Tested random forest classification in R to classify land cover on islands in Sentinel-2 satellite imagery.
- Fine-tuned object detection models in Python to identify archaeological sites in aerial photographs, Sentinel-2 imagery, and LiDAR-derived digital elevation models.

TRUBEL&CO Remote

# Volunteer (December 2023 - December 2024), Programs & GIS Intern (Present)

December 2023-Present

- Conducting outreach with partner organizations for Mapping Justice, a course teaching GIS for climate justice.
- Helped host *EcoGIS*, 3 virtual workshops for young professionals about GIS for environmental justice in Florida.
- Developed a workshop to teach high school students how to analyze and map climate data with Python.

### RESEARCH EXPERIENCE FOR UNDERGRADUATES

University of Maryland, Baltimore County

#### Researcher

June 2024-August 2024

• Developed workflow incorporating regression and clustering in Python to improve estimates of rainfall rate from weather radar data, improving accuracy and generating interpretable equations.

### **VOLUNTEER EXPERIENCE**

#### **TURNING GREEN**

August 2023-May 2024

• Built dashboard of organic farms in California to connect schools with local farmers using ArcGIS Online, along with a story map about the importance of nutritional food for youth.

## 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 in Miami for a dialogue about climate gentrification in Miami.