OLIVIA ZHANG

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EDUCATION

Bachelor of Science in Geography and Data Science　　　　　　　　　**May 2027 (Expected)**
University of Florida　　　　　　　　　　　　　　　　　　　　　　　　　**Gainesville, Florida**
- Pursuing certificates in *Geographic Artificial Intelligence and Big Data* and *Geospatial Information Analysis*
- 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:** Git/GitHub, Canva, LaTeX, Microsoft Office, Google Suite, WordPress

WORK 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.
- 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 from remote sensing data with ArcGIS Pro, Python, and Roboflow.
- Applied random forest classification in R to classify land cover on islands in Sentinel-2 images with 90% accuracy.
- 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.