ANNIE (YU-YUN) RUAN

Email: annieyun117@gmail.con I Website: https://yuyunruan.github.io/
LinkedIn: www.linkedin.com/in/annieruan I Tel: (+1) 774-701-8635

As a passionate geospatial analyst focusing on ecological conservation, I strive to leverage big data to mitigate environmental impacts, promote natural ecosystems' recovery

EDUCATION

Clark University, GPA: 3.8 — Worcester, MA
M.Sc. in Geographic Information Science (Conservation Application) — *2021- Dec 2023*
National Dong-Hwa University — Hualien, Taiwan
B.S. in Natural Resources and Environmental Studies (Ecology and Conservation, Environmental Policy Management) — *2014-2018*

SKILLS

Highlights: Geospatial analysis, Cartography, Remote sensing, Web Mapping, Machine learning (Random Forest, Logistic Regression), Landscape Ecology, Fieldwork (Wildlife Radio Telemetry, Camera Trap, Wildlife Identification)
Programming: Python (ArcPy, Pandas, NumPy), R, SQL, HTML, CSS, JavaScript
Software: Esri Products (ArcMap, ArcGIS Pro, ArcGIS StoryMaps, Survey123), QGIS, TerrSet, OpenStreetMap, PostgreSQL (PostGIS), Google Earth Engine, Fragstats, Zonation, MSPA, GitHub, Microsoft Office Suite

EXPERIENCE

Internship — Worcester, MA
Geospatial Ecosystem Conservation Lab at Clark University — *Sep – Nov, 2023*

- Conducted analysis of landscape changes around 606 sampling sites in Brazil's Atlantic Forest, using mapbiomass and extracting key landscape metrics to assess ecosystem resilience and the potential for zoonotic spillover risk.
- Utilized advanced analytical software, including Python, R, and Fragstats, to deliver crucial data on biodiversity, contributing to a vital understanding of forest fragmentation and regeneration.

Student Assistant — Palm Spring, CA
ESRI Developer Summit 2023 — *Mar, 2023*

- Provide support in registration and attended to session attendees, to ensure a seamless and enriching conference experience. Assist participants with inquiries, guiding them through the event, and addressing their needs effectively.

Associate Assistant — Taichung, Taiwan
Union Land Administration Agent Office — *Mar, 2019 - Jan, 2021*

- Facilitate effective communication and collaboration between the company and public sector entities. Provided comprehensive administrative support to optimize office operations and enhance overall efficiency.

Research Assistant — Hualien, Taiwan
National Dong Hwa University — *Sep, 2016 - Jun, 2018*

- Assist in multiple research projects, including the investigation of terrestrial ecology in the East Coast National Scenic Area of Taiwan, the resilience of the social-ecological system in the Central East Rift Valley of Taiwan, and the long-term forest dynamics plot investigation in the Pasoh Forest Reserve of Malaysia.
- Assist with installing and maintaining field equipment, such as infrared cameras, and conducted data collection (N = 30) and analysis in R. Tracked and identified mammal and plant species through field investigations and surveys, providing valuable insights for the project.

PAST PROJECTS

Risk Assessment of Wildlife-Vehicle Collisions for Black Bears in Southern Florida: A Land-Use Perspective — *May, 2022*

- Utilize PostgreSQL to analyze black bear roadkill records, examine land use changes around roadkill points, and explore environmental characteristics as predictors of wildlife-vehicle conflict (WVC) locations.
- Highlight the significance of comprehending the impact of land use change on vulnerable animal populations facing high extinction risks due to WVC and roadkill incidents.

Distinguishing Gilbertiodendron Dewevrei and Mixed Forest in the Okapi Wildlife Reserve, Democratic Republic of Congo, using multi-source satellite data. — *May, 2022*

- Utilized remote sensing and machine learning in R to analyze forest diversity in the DRC Forest,generated precise maps for the Okapi Wildlife Reserve, supporting conservation and regional forest dynamics analysis.
- Evaluated map accuracy, compared Sentinel-2 and PlanetScope datasets, and offered insights on their strengths and weaknesses, enriching the understanding of forest dynamics and conservation efforts.