Job Title: Geo AI Specialist

Job Responsibilities:

- Design, implement, and optimize artificial intelligence (AI) and machine learning (ML) models for processing satellite and drone-based geospatial imagery for blue carbon ecosystem assessments.
- Develop and train AI models to automate the identification, mapping, and quantification of coastal ecosystems such as mangroves and seagrasses.
- Integrate AI and GIS workflows to enhance the project's data analysis pipeline, supporting real-time monitoring and predictive modeling of blue carbon assets.
- Analyze large geospatial datasets using machine learning frameworks to develop tools for detecting habitat changes, classifying ecosystems, and quantifying carbon sequestration.
- Collaborate with GIS, remote sensing, and ecological experts to ensure seamless integration of AI-based tools with spatial data and ecosystem models.
- Develop predictive models for habitat degradation, restoration potential, and ecosystem service valuation using advanced GeoAI techniques.
- Contribute to the creation of user-friendly platforms and decision-support tools for coastal ecosystem management and policy-making.

Qualifications and Skills:

- Master's or PhD in GeoAI, Data Science, Machine Learning, Environmental Science, or related fields with a focus on geospatial data analysis.
- Proven experience with AI/ML frameworks such as TensorFlow, PyTorch, or Scikit-learn and their application to geospatial data.
- Proficiency in programming languages like Python, with experience in geospatial libraries (e.g., GDAL, GeoPandas) for spatial data processing.
- Expertise in deep learning techniques applied to remote sensing and drone-based environmental monitoring.
- Experience with cloud-based platforms (e.g., Google Earth Engine, AWS) for large-scale geospatial data analysis.
- Strong understanding of coastal ecosystems, blue carbon dynamics, and ecological monitoring is preferred.
- Excellent problem-solving, analytical, and communication skills for collaborating across scientific disciplines and presenting GeoAI findings to stakeholders.