

# FiniteCarbon

## JOB DESCRIPTION

### MID-SENIOR LEVEL

## REMOTE SENSING ANALYST

### ORGANIZATION BACKGROUND

**Finite Carbon** is the leading developer and supplier of forest carbon offsets in North America with 3 million acres under carbon management. We offer an end-to-end solution for forest owners seeking to participate in the carbon market including project feasibility, inventory, modeling and documentation, verification oversight, timber-carbon decision support, and offset transactions. Finite Carbon is seeking a Remote Sensing Analyst to support the development of Finite's growing portfolio of forest offset projects. The candidate will join a team of 18 employees including 13 full-time foresters who provide unmatched technical expertise and implementation capabilities.

Finite Carbon offers an entrepreneurial environment with the opportunity to learn from industry veterans and participate in the success of the business. We have a wide range of clients from tribes, land trusts, and family forests to the largest TIMOs and public timber REITs in the country. Our organization prides itself on working as an advocate of these landowners and is committed to integrity and fair dealing in all its business interactions. As such, Finite Carbon expects potential candidates to hold these same values in high regard. For more information, please visit [www.finitecarbon.com](http://www.finitecarbon.com) and [www.corecarbon.com](http://www.corecarbon.com).

### POSITION OVERVIEW

The candidate is expected to work with Finite Carbon's online platform team. They will oversee the development of remote sensing products from third parties as well as develop internal products and analysis for the online platform. The candidate should be familiar with automated change detection, image classification and data visualization for forest carbon inventory applications.

### PRIMARY RESPONSIBILITIES

- Identify, evaluate and select cost-effective providers of remote sensing data for use in carbon offset projects. Source and maintain high resolution imagery of forest composition and change.
- Optimize and maintain forest inventory data pipeline and geospatial modeling procedures.
- Develop and implement processes for data management, data loading and archival of satellite imagery and other remote sensing data, consistent with carbon offset program needs and regulatory requirements.
- Establish scalable methods for applying imagery updates and stratification of carbon projects

- Focus on regional- and national-scale applications of FIA data to mapping projects, statistical estimation and analysis, accuracy assessment protocols, and data display and presentation technologies.
- Implement technical and operational processes for forest change detection using updated forest imagery (remote sensing).
- Oversee QA/QC program for validation of stratified satellite imagery.
- Support company platforms and technical vision/direction with options and direction for required satellite imagery.
- Assist in desktop verification of project inventory and project valuation algorithms.
- Assist with forest carbon inventory design.
- Understand capabilities of machine learning algorithms for converting image data to map-based imagery.
- Travel occasionally and when necessary to project sites, team training meetings, and /or conferences.

### **EDUCATION**

- Preferred
  - B.S. in Computer, Geospatial or Information Science, specific to GIS or forestry/environmental applications.
- Optional
  - B.S. in forestry or related natural resources management degree.
  - Masters level degree from an SAF accredited forestry school is a plus, but not required.

### **EXPERIENCE**

- Required
  - 2-5 years, or 6-10 years practical proficiency in using products and/or programming to extract, transform, load and monitor satellite data or other imagery for use in web applications
  - Strong background in geographic information systems (GIS): ESRI, R, QGIS, Google Earth Engine, LandViewer or similar.
  - Working in a Postgres/PostGIS database to access and query data and conduct analysis.
  - Experience and understanding of different satellite sensors, synthetic aperture radar (SAR) imagery, image resolution, and range (band) configurations.
- Optional
  - 1 or more years (or educational equivalent) of applying machine learning for data conversion.
  - Programming experience in Python and/or other relevant programming languages.

### **SKILLS**

- Knowledge of relevant software areas
  - Image Rendering, Layering and Tiling in a geospatial representation.

- MS Excel and MS Access
- Word Processing (Word)
- Presentations (Powerpoint)
- Amazon Web Services or similar
- Practical application of machine learning and AI (preferred)
- Familiarity with small area estimation, geospatial modeling, and change detection methods.
- Strong communication skills – both verbal and written.
- Ability to prioritize and manage time to meet deadlines.
- Ability and Desire to be a team player and support colleagues in all aspects of the company.
- Independent Problem Solving while recognizing when to involve others.
- Certification and credentials, or a willingness to acquire them, in the field of forestry, GIS, and/or data science.

**COMPENSATION AND LOCATION:**

Salary is commensurate with experience. Position includes a competitive benefits package. Location is flexible but with a strong preference for candidates to be able to reside near our Philadelphia, PA or Tallahassee, Florida office.

**APPLICATION PROCESS:**

Interested candidates must submit the following information:

- Cover Letter
- Resume

Applications should be emailed with “Remote Sensing Analyst” as the subject line to [careers@finitecarbon.com](mailto:careers@finitecarbon.com).

*Finite Carbon is an equal opportunity employer. At Finite Carbon, we are committed to providing an environment of mutual respect where equal employment opportunities are available to all applicants and teammates without regard to race, color, religion, sex, national origin, age, marital status, military and veteran status, and any other characteristic protected by applicable law. Finite Carbon believes that diversity and inclusion among our teammates is critical to our success.*