Job Description

At Climate, our mission is to use technologies to enhance the sustainability and security of our global food value chain. Using field-verified data science models, Climate is shaping the future of sustainable agriculture across 180 million acres worldwide and counting. As the digital farming arm of Bayer Crop Science, we have the benefits and resources of an established organization while offering employees the opportunity to deliver significant individual impact alongside some of the brightest minds in life sciences.

Grounded in our vision, 'Health for all, Hunger for none', our diverse team spends their days solving the world's most pressing challenges through sheer curiosity and dedication. In our learning-oriented and flexible environment, you can find us collaborating in a hybrid model that mixes on-site and remote work.

Our LIFE values—leadership, integrity, flexibility, and efficiency—and our unique focus on health and nutrition demand that we create value for all stakeholders—today, tomorrow, and for generations to come. If you're hungry to build a meaningful career helping empower farmers with sustainable digital farming systems, keep reading!

The Opportunity

The Data Insights Geospatial and Remote Sensing Team, a member of the Science division within Bayer's Digital Farming Solutions, is focused on developing scientific algorithms that transform remote sensing & geospatial datasets from a variety of sources, (e.g., multispectral, radar …) into foundational layers that describe the grower's fields, its environmental conditions, and farm sustainable management practices.

We are looking for a Data Scientist with strong domain knowledge and expertise in remote sensing, coupled with the ability to develop and apply algorithms to extract meaningful insights. As a member of our group, you will design and develop remote sensing-based features and layers at scale that will be used for a wide variety of applications across the organization.

This role couples writing quality reproducible code with rigorous scientific research and strategic decision-making based on the needs and domain of the business. Our development approach is centered on deep understanding of remote sensing datasets, our internal data, the requirements of the various downstream applications, and the need to have a stable algorithm that can efficiently process data for large areas of interest. You will collaborate with a highly motivated group of teammates with diverse skillsets, that range from data engineering to AI, to learn from along the way, and we look forward to learning from you as well!

What You Will Do

- Design and develop quality scientific algorithms to derive features from satellite remote sensing data, such as multispectral and/or radar that captures the field condition in time

- Develop performant algorithms that use satellite remotely sensed data and features to characterize grower's field environment and management practice
- Assess satellite products and sensor technologies that best meet business needs
- Drive decision-making in your algorithm through continuously performing in depth validation driven by both engineering and domain requirements
- Perform deep root cause analysis of datasets and remote sensing-based features as a part of the algorithm validation
- Communicate technical information to peers, business partners, and strategic leaders across the company
- Contribute to defining team roadmaps
- Collaborate/coordinate with members of your team and outside teams with varied backgrounds to deliver as a part of larger highly interconnected efforts

About You

What You'll Need

- Ph.D. or MS +2 years, or Bachelors +5 years of experience in Engineering, Math, Environmental Science, Computer Science or other highly quantitative discipline with 2+ years of programming experience with R or Python required
- Foundational knowledge of Earth Observation satellite data from multiple sources and spectral regions (e.g., optical, RADAR) used for any environmental application
- Proven experience designing, and conducting exploratory analysis, data preprocessing and post-processing of Earth Observation satellite data and derived (public and proprietary), at scale for any environmental application
- Proven experience applying statistical methods for data analysis and uncertainty estimation

Nice To Haves

- 2+ years of experience designing, developing and writing algorithms/ models with Python to derive remote sensing-based layers with agronomic insights, such as field delineation, management practices or environmental soil properties, using remote sensing datasets and methods
- Familiarity with agricultural practices, sustainability and decision-making
- Excellent communication skills to solicit information from domain experts, clarify requirements, and drive efforts forward
- Comfortable working in a highly collaborative environment—communicates openly, challenges decisions using respectful communication and is comfortable being challenged by others, values constructive feedback on various aspects of work (technical, communication, project direction), proactively and continuously seeks out others' input
- Experience turning high level needs into a concrete set of requirements, and structuring development, analysis, and validation plans to meet these requirements

- Ability to formulate appropriate methods for an algorithm that are tailored to the requirements of the use case