

Geospatial Data Engineer, WW Sustainability

Job ID: 2619009 | Amazon.com Services LLC

BASIC QUALIFICATIONS

- 5+ years of data engineering experience
- Experience with data modeling, warehousing and building ETL pipelines
- Experience with SQL
- Experience in at least one modern scripting or programming language, such as Python, Java, Scala, or NodeJS
- Deep experience with geospatial data types: both raster (GeoTIFF, COG, NetCDF, etc.) and vector (GeoJSON, etc.), as well as usage of GIS tools
- Experience with common geospatial Python libraries: GeoPandas, XClim, Xarray and others
- Experience with remote sensing and satellite data (SAR, GEDI, RGB, and others)

DESCRIPTION

Join us at the cutting edge of Amazon's sustainability initiatives to work on environmental and social advancements to support Amazon's long term worldwide sustainability strategy. At Amazon, we're working to be the most customer-centric company on earth. To get there, we need exceptionally talented, bright, and driven people.

The Worldwide Sustainability (WWS) organization capitalizes on Amazon's scale and speed to build a more resilient and sustainable company. We manage our social and environmental impacts globally, and drive solutions that enable our customers, businesses, and the world to become more sustainable.

The Sustainability Measurement & Abatement Technology team builds technical solutions to track, record, and forecast Amazon's WW impact on the Environment (i.e., Carbon, Water, Waste, etc.). This includes calculating past and current impacts and future abatement plans, ensuring credibility through standards and validations, and highlighting non-obvious opportunities for Amazon's global business teams.

We are looking for a Data Engineer to help us extend our geospatial capabilities to build sustainable experiences for customers at Amazon. This individual will play a critical role in establishing the foundational data infrastructure that scales metric derivation for assessments requiring area-based analysis and insights.

This role focuses on building ready and fit for use risk factor data (such as hazards, vulnerability, etc.), derived from climate, weather, and socioeconomic geospatial datasets from various internal and external sources. We build systems to evaluate and vend the geospatial data required for risk assessment activities that ultimately influence operational planning mechanisms.

- Key job responsibilities
- Own the operations of Amazon World-Wide Sustainability's geospatial data, including ingestion, documentation, quality, and metadata management
 - Design, develop, and program methods and processes to consolidate unstructured data from bespoke sources
 - Partner with the science team to operationalize new data pipelines, identifying opportunities to scale science work, and promote data best practices
 - Collaborate with the engineering team to build scalable, state of the art data pipelines that enable statistical and ML-based modeling with geospatial data
 - Produce initial reporting and visualization to support Amazon World-Wide Sustainability's needs as a customer of this team, producing denormalized tables and associated dashboards. Develop a reporting and analysis roadmap.
 - Regularly interact with product and program teams to identify core problems and opportunities that can be answered through data analysis and experiments

A day in the life

While working within the broader Sustainability data engineering community to define and model data best practices, you'll partner closely with a team of software engineers and research scientists, focusing on how to use geospatial climate, weather, and socioeconomic datasets to quickly develop new solutions in the sustainability space. One day you might be building a data pipeline to consume weather hazard data and the next you might be working to extend the granularity of the data through interpolation and other adjustments. Every day you'll connect with world-class minds at the cutting edge of their space.

About the team

Diverse Experiences:

World Wide Sustainability (WWS) values diverse experiences. Even if you do not meet all of the qualifications and skills listed in the job description, we encourage candidates to apply. If your career is just starting, hasn't followed a traditional path, or includes alternative experiences, don't let it stop you from applying.

Inclusive Team Culture:

It is in our nature to learn and be curious. Our employee-led affinity groups foster a culture of inclusion that empower us to be proud of our differences. Ongoing events and learning experiences, including our Conversations on Race and Ethnicity (CORE) and AmazeCon (gender diversity) conferences, inspire us to never stop embracing our uniqueness.

Work/Life Balance:

We value work-life harmony. Achieving success at work should never come at the expense of sacrifices at home, which is why flexible work hours and arrangements are part of our culture. When we feel supported in the workplace and at home, there's nothing we can't achieve.

Mentorship and Career Growth:

We have a career path for you no matter what stage you're in when you start here. We're continuously raising our performance bar as we strive to become Earth's Best Employer. That's why you'll find endless knowledge-sharing, mentorship, and other career-advancing resources here to help you develop into a better-rounded professional.

We are open to hiring candidates to work out of one of the following locations:

Arlington, VA, USA | Detroit, MI, USA | Seattle, WA, USA

PREFERRED QUALIFICATIONS

- Experience operating large data warehouses
- Experience with big data technologies such as: Hadoop, Hive, Spark, EMR
- Experience or background in any of the following: Parquet, Dask, Zarr, STAC
- Basic understanding of geophysics (weather, climate, earth science)
- Familiarity with Pangeo services

Amazon is committed to a diverse and inclusive workplace. Amazon is an equal opportunity employer and does not discriminate on the basis of race, national origin, gender, gender identity, sexual orientation, protected veteran status, disability, age, or other legally protected status. For individuals with disabilities who would like to request an accommodation, please visit <https://www.amazon.jobs/en/disability/us>.

Our compensation reflects the cost of labor across several US geographic markets. The base pay for this position ranges from \$123,700/year in our lowest geographic market up to \$240,500/year in our highest geographic market. Pay is based on a number of factors including market location and may vary depending on job-related knowledge, skills, and experience. Amazon is a total compensation company. Dependent on the position offered, equity, sign-on payments, and other forms of compensation may be provided as part of a total compensation package, in addition to a full range of medical, financial, and/or other benefits. For more information, please visit <https://www.aboutamazon.com/workplace/employee-benefits>. This position will remain posted until filled. Applicants should apply via our internal or external career site.

JOIN US ON

f

in





Amazon is committed to a diverse and inclusive workplace. Amazon is an equal opportunity employer and does not discriminate on the basis of race, national origin, gender, gender identity, sexual orientation, protected veteran status, disability, age, or other legally protected status.

[Privacy and Data](#)[Impressum](#)

© 1996-2024, Amazon.com, Inc. or its affiliates