

Full Stack Data Engineer

Overview:

The successful candidate will play a critical role in enabling translation of big data into practical and decision-useful information and insights to support clients into “doing the right things” in the times of changing climate and environmental crisis. The data engineer will ensure seamless and robust workflow of raw data inputs to end products through various scientific tools and methods (i.e., referenced from established research papers) that can be scaled and customised/parameterised to client’s needs and business sector or practices.

We’re an early stage company in a rapid growth stage, with a small but collaborative and energized team. Climate Risk Services offers advisory services alongside development of product solutions for managing climate risk, transition and opportunity. On the advisory side, we support clients through governance of climate as a material risk issue and a regulatory compliance issue, building an understanding of how climate should factor into business and operational strategies, developing robust risk management processes and frameworks, and data-based analysis and assessment of climate risks for markets, investment or lending portfolios, and at the asset-level. On the product development side, we are building exciting platform-based enterprise level solutions to support our clients in embedding climate into strategic and financial decision-making. We’re focused on turning climate data science into actionable insights, bridging the gap between climate science and financial and operational decision-making.

What you’ll be doing:

You will create a secure and market compliant big data storage structure and robust ETL workflow/pipeline to upkeep and process all the climate and financial related data to result in a scalable climate-smart product development. These products include scientifically based, intuitive and practical decision support scores, information, and interactive visualisation platform to align client into a climate responsible and resilient business practice.

Some of your responsibilities will include:

- Work across the full stack building highly scalable distributed solutions that enable positive user experiences.
- Managing climate-related big data repository, including the upkeep of the metadata and documentation, versioning (such as git) and bug reporting.
- Design 2-way interactive and intuitive data platforms to manage client’s request and data inputs and help clients and the CRS team to visualise and communicate data products.
- Scaling and ensure robust and seamless implementation of prototyped or cited models/code within the product data workflow in the common server (cloud/on-premise)
- Developing and managing data workflow from raw inputs to modelled outputs and products for visualisation and build pre- and post- processing routines when necessary.
- Assist and collaborate closely with peers of our in-house science team and research institute partners to develop/implement new climate risk and opportunity software products.
- Assist and collaborate closely with peers to develop quality testing procedure to evaluate the data workflow, codes and products.

What we're looking for:

We're looking for someone who is a high-performing team player who takes initiative, is detail-oriented and well structured, transparent/ honest and communicative about shortcomings and challenges, has a collaborative and 'learning' approach, is action and result-oriented. Workflow sustainability matters to you, and recognising and learning together from mistakes is something you value.

It is important to have already practical working experience in developing data workflow/ pipeline and visualisation platform. It would be an advantage to have experience working with climate data, or in energy and/or carbon; however this is not a strict requirement. Here's a few of our requirements:

- Minimum bachelor's degree in computer science, information technology, engineering, computing oriented geoscience or a relevant field with proven portfolio/ big data handling experience. Master Degree would be an advantage.
- Experience in building flexible data pipelines to process heterogeneous data, developing intelligent tools/ visualization and experience in building dashboards.
- Working knowledge of scripting Python, Bash, and PostgreSQL and/ GIS database system.
- Python dashboard package knowledge: Dash, Plotly, Flask, React, Params, etc.
- Python data processing tool: Xarray, Pandas, GeoPandas, Xclim, Fiona, etc.
- Working knowledge of HTML5 and JavaScript and scalable web frameworks and API solutions (e.g. REST API).
- Working familiarity with the following file format:
- NetCDF, HDF5, GeoTIFF, GeoJSON, XML, ISO 19115 metadata standards
- Working knowledge of cloud computing and deploying simulation/ calculation batches on cloud computing server (preferably google cloud computing infrastructure).
- Experience in development lifecycles, system testing, usage of test data tools, writing validation test scripts, and importantly GIT deployment and documentation.
- Working experience/ deployment with GIT (and additionally GIT-LFS is an advantage)
- Cheerful, motivated, proactive, love to work in a team and able to collaborate effectively with members in different geographical locations.

Ideally, you will also have outstanding skills and experience in one or more (or a blend) of following areas:

- Knowledge of OGC Web Services for accessing Geographic Data e.g. WFS and WMS.
- Experience in usability, UI design and user experience.
- Knowledge in Django, Docker/ Kubernetes
- Knowledge of Google Earth Engine
- Knowledge of Machine Learning e.g. DL, ANN, Random Forest, etc.
- Knowledge of GIS software (e.g. QGIS) & Power BI

What we offer:

The opportunity to be at the forefront of climate risk management and climate focussed impact. You'll be in at the ground level of building something exciting and with significant growth potential, in a topic area that is accelerating in importance. You'll also get:

- Variety. Spend 80% of your time on your primary role and 20% contributing to other projects and initiatives, to build your experience and add your unique value across the company.
- Development. We'll build your skills and knowledge of climate, from mitigation through adaptation and into risk management; both internally and externally.
- Exposure. We're a small company, so you'll see inside everything from setting strategic goals for the year through to building products from the ground up.
- Growth. We're growing, and so will you. Significant potential to step up in role and responsibility as our growth accelerates, while developing into a subject matter expert.
- Excitement. You'll be part of a fun, informal, and collaborative team that is excited and passionate about the work we do and the potential we see.

Compensation will be commensurate with experience and ability to add value. In addition to salary, we offer a performance-based bonus, flexible working options, 25 days holiday annually, and consideration for equity.

Location

Strong preference for the role to be based in Utrecht, Netherlands; or in the United Kingdom. However, flexibility or some remote working could be considered for the right candidate.

Diversity & Inclusion

Climate Risk Services believes that diversity is critical to achieve our goals of innovation and building value for our clients. All applications will receive consideration for employment without regard to ethnicity, religion, gender, gender identity or expression, sexual orientation, nationality, disability, age, or social background.

How to Apply

Send a cover letter and your CV and optionally link to your git repository/ portfolio to careers@climateriskservices.com with subject line, "Application for Full Stack Data Engineer Role". Applications will be reviewed on a rolling basis.