

# Stéphane Karasiewicz

Climate Pipeline Partner · Senior Data Engineer for Parametric Insurance

Hauts-de-France · Remote worldwide ·   native

[skarazdata.com](https://skarazdata.com) · [linkedin.com/in/stephane-karasiewicz](https://linkedin.com/in/stephane-karasiewicz) · [github.com/KarasiewiczStephane](https://github.com/KarasiewiczStephane)

[skaraz.science@gmail.com](mailto:skaraz.science@gmail.com)



*I help parametric insurers ship climate scoring pipelines in 8 to 16 weeks, bridging climate science and DevOps without recruiting in-house.*

## Experience

**Skaraz Data, Founder (Sep 2023 → Present). Climate Pipeline Partner (May 2026 → Present)**

Remote

*Senior data engineering for parametric insurance climate pipelines.*

- › Audit, build, and operate production climate scoring pipelines (drought, heat stress, precipitation, water balance)
- › 3-tier engagement: Discovery (€5-7k, 2 weeks) · Partner (€25-50k, 8-16 weeks) · Retainer (€2-4k/month)
- › Code Quality Guarantee: any major bug in production on shipped code fixed for free within 30 days of handover
- › Available: 2-3 new engagements per quarter

**Raincoat LLC, Senior Data Scientist (Freelance contract)**

Feb 2024 → Jan 2026 · Remote

*Parametric insurtech (Seed-stage, San Juan, Puerto Rico). Climate risk technology.*

- › Operated end-to-end ML pipelines for **4 climate perils** (drought, heat stress, precipitation, water balance) across **10+ countries** in LatAm, SEA, and Africa
- › Engineered automated data management for **2 TB+ satellite & reanalysis data** (CHIRPS, IMERG, ERA5-Land, Copernicus CDS, WEKEO)
- › Built **water balance** pipeline from scratch to production; built **heat stress** pipeline to ready-to-deploy state; delivered a **modular architecture roadmap** as scoped technical handoff for next-perils scaling, transferred to the team at contract end
- › Ran dev/ops solo for production pipelines at end of contract; built **3 country-level operational dashboards** (Precipitation, Water Balance, Drought)
- › Tools: Python, xarray, GDAL, Docker, PostgreSQL, scikit-learn

**IFREMER, Marine Remote Sensing Researcher**

Feb 2018 → Jul 2023 · Boulogne-sur-Mer & Brest, France

*French National Institute for Ocean Science. 5+ years in satellite remote sensing for marine ecology.*

- › Operated production R pipelines processing 500 GB+ satellite & in-situ data; reduced manual effort by 50 hours/month
- › Authored 2 CRAN packages (BDAlgo, subniche) with **8,000+ cumulative downloads** and 27+ citations
- › 6 peer-reviewed publications on environmental modeling using MODIS, Sentinel-2/3, and reanalysis data
- › Mentored 6 researchers and Master's students on R, Git, and reproducible research

## Technical stack

**Climate data:** CHIRPS · IMERG · ERA5-Land · Copernicus CDS · WEKEO · MODIS · Sentinel

**Engineering:** Python (expert) · xarray · GDAL · Docker · PostgreSQL · Airflow · CI/CD

**Languages:** Python · R (2 CRAN packages) · SQL · Bash

**Methods:** Production data pipelines · Geospatial analysis · Time-series · Multivariate stats

## Education

**PhD Marine Ecology**, Université de Lille, France (2014-2017). Phytoplankton evolution. Novel WitOMI statistical framework for ecological niches.

**M.Sc. Marine Ecology**, Stockholm University (2012-2014) · **B.Sc. Ecosystem Science**, Open University, England (2010-2012)

## Publications & Open Source

### CRAN R packages

- › **subniche**: Ecological niche modeling using OMI framework · 5,000+ downloads · 15+ citations
- › **BDAlgo**: Bloom detection in time-series, extracts 22 phenological variables · 3,000+ downloads · 12+ citations

### Featured publication

- › Karasiewicz S., Chapelle A., Bacher C., Soudant D. (2020). *Harmful algae niche responses*. **Harmful Algae**, 98:101785. <https://doi.org/10.1016/j.hal.2020.101785>

5 additional peer-reviewed publications at [ResearchGate](https://www.researchgate.net).

## Languages

French · Native. English · Native (dual citizenship).

**Available · 2-3 new engagements per quarter**

Best contact: LinkedIn DM with "reality" for the free Climate Pipeline Reality Check PDF.