

Vacancy Profile

Early-Météo project

About Us

Brief presentation of your company/Tecnio Centre, specifying your sector of activity, research infrastructure, research expertise in the field and in technology transfer activities and the conditions you offer (maximum 2,000 characters).

Mitiga Solutions S.L. is a spin-off of the Barcelona Supercomputing Center, specialized in the evaluation and mitigation of the impact of the natural and social hazards, in particular in the aviation, Insurance, and humanitarian industries. Mitiga develops and commercializes deep tech products using supercomputing and AI resources to quantify the risk and impact of extreme natural events providing early warning systems and other emergency response solutions.

Researcher's profile

Description of the researcher requirements. Do not include the Tecniospring eligibility criteria in this section, but rather describe the minimum education required, the preferred areas of expertise, the experience, the minimum language requirements, etc. (maximum 1,000 characters).

- PhD or Master's degree in a quantitative field such as natural sciences or meteorology.
Also, the following skills will be desired:
 - Several years of experience in weather/climate modelling research
 - Experience in a corporate or start-up research role for a number of years, insurance industry experience is a plus
 - An understanding of the literature regarding current issues related to disaster risk management, climate change and resilience is highly desirable.
 - Knowledge of quantitative of research methods (e.g., modeling, statistics, risk analysis, stochastic simulation).

Brief description of the project objectives and expected results. Remember to define the tasks that will be developed by the researcher (maximum 2,000 characters).

Many natural hazards are directly triggered or indirectly driven by weather-related phenomena. Meteorological datasets and climatic forecasts are pivotal to many components of the cycle of risk, from driving physical models for hazard assessment to its integration on scenarios of the risk modelling chain. Such datasets constitute an essential building block component to many micro services and integrated technology solutions for natural risk modelling and early warning forecasts. This project aims at automating the extraction and/or model generation of meteorological and climate data across multiple space and time scales, its cleaning and postprocess to diagnose secondary variables, its curation and, finally, its integration in the company's middleware.

Keywords: Meteorological, natural hazards, risk modeler, early warning.

The role of the Weather and Climate Modeler candidate will include:

- Plan and build scalable, integrated technology solutions across the company.
- Communicate complex topics in a simple way to internal and external stakeholders not familiar with the topics.
- Integrate latest climate scenarios into the risk modeling chain.
- Curate, extract, clean and process weather and climate datasets.
- Perform stochastic modeling of climate and weather data.
- Evaluate the limitations of existing data sources and test methods of extreme weather Modeling.
- Employ agile development and rapid prototyping techniques.
- Promote best engineering practices to ensure quality assurance.
- Anticipate options and adapt to new opportunities.

Incoming Outgoing+Return

Sector:

Food Industries Industrial Systems Chemistry, Energy and Resources Design Industries
Sustainable Mobility Health and Life Sciences Culture and Experience-based Industries

Technology:

Photonics Biotech ICT X
Nanotechnology Advanced Materials Advanced Manufacturing

Contact information

Contact Person: Arnau Folch

Email address: arnau.folch@mitigasolutions.com