EUMETSAT

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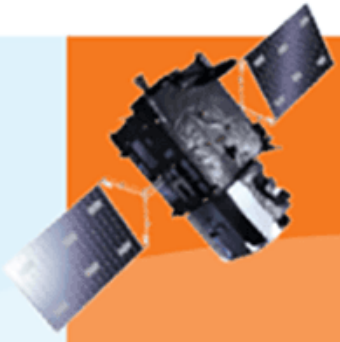

INTERNSHIP IN THE USER SUPPORT & CLIMATE SERVICES DIVISION

EUMETSAT is committed to support the operational monitoring of climate and the detection of global climate change. As part of this commitment, EUMETSAT provides consistent atmospheric Climate Data Records (CDR) from its operational satellites in low earth and geostationary orbits. Product validation is an important step when generating these records, and involves the comparison with independent data from various sources such as models, ground based measurements, and other satellite products.

As an example, since the launch of its first generation of geostationary satellites, EUMETSAT has developed its own unique algorithms to derive atmospheric motion vectors (AMVs). In the framework of the Copernicus Climate Change Service (C3S), a Climate Data Record from geostationary AMVs was produced. The unique EUMETSAT algorithm was adapted for climate purposes for first and second generation geostationary satellites and the complete series of MVIRI and SEVIRI images from Meteosat-2 to Meteosat-10 has been processed.

EUMETSAT is also reusing its AMV processing capability to reprocess Atmospheric Motion Vectors (AMVs) derived using images from all AVHRR instruments that have flown on-board several low earth orbiting satellites (NOAA and Metop). This allows having a very long time series starting in 1978. In 2020, a comprehensive evaluation of the AMV data record quality employing independent in situ and other satellite data products including the LAC data for Metop-A and -B will be done.

The validation/verification of the EUMETSAT CDR is done by the Climate Service team in USC.

The internship will bring the candidate directly to the action of the USC team and represents a perfect opportunity for a student to discover EUMETSAT reprocessing activities, learn about validation strategies and to apply some statistics methodology to real data sets. It will teach that careful analysis of reprocessed data is mandatory and essential before they can be used with confidence in climate science.

This project intends to help with the validation of the CDRs and in particular AMVs.

DUTIES

LOCATION

Darmstadt, Germany

QUALIFICATIONS

University degree in Atmospheric physics, computing, mathematics. On-going Master degree is advantageous.

LANGUAGES

Candidates must be able to work effectively in English and have some knowledge of French.

DEADLINE

20 March 2020

The intern's work will be focused on satellite data and products analysis;

The intern will work with a unix environment and should know Python.

The candidate should be comfortable with computer tools.

The final internship report will be written in English.

SKILLS AND EXPERIENCE

Python programming skills;
Some experience with a Unix/Linux environment are mandatory;
Experience with Earth data analysis would be very useful as well as a basic knowledge of the Earth climate;
Knowledge on database usage will be a plus;
Ability to apply some new methodology;
Ability to work in a team;
Ability to work independently under guidance.

EMPLOYMENT CONDITIONS

Length of internship: Up to 4 months
Anticipated start date: May 2020

Interns who have recently finished their studies will receive German minimum wage.
No salary is paid to interns who are still in studies, however a daily allowance and contribution to travel / accommodation costs may be provided. The conditions will be established taking into account the requirements and policy of the intern's educational institution.
Interns are responsible for providing their own health and accident insurance and for finding their own accommodation in Darmstadt.

EUMETSAT is committed to providing an equal opportunities work environment for men and women.
Please note that only nationals of EUMETSAT Member States may apply. The EUMETSAT Convention requires that Staff shall be recruited on the basis of their qualifications, account being taken of the international character of EUMETSAT.

ABOUT EUMETSAT

EUMETSAT is Europe's meteorological satellite agency. Its role is to establish and operate meteorological satellites to monitor the weather and climate from space - 24 hours a day, 365 days a year. This information is supplied to the National Meteorological Services of the organisation's Member and Cooperating States in Europe, as well as other users worldwide.

EUMETSAT also operates several Copernicus missions on behalf of the European Union and provide data services to the Copernicus marine and atmospheric services and their users.

As an intergovernmental European Organisation, EUMETSAT has 30 Member States (Austria, Belgium, Bulgaria,

Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.)

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