Scientific Python Developer/Engineer

Position information

Vacancy No.: VN20-08	Department: Forecasts
Grade: A2	Section: -
Job Ref. No.: STF-C	Reports to: Principal Software Strategist
Publication Date: 13 March 2020	Closing Date: 30 April 2020

1. About ECMWF

ECMWF is both a research institute and a 24/7 operational service, producing global numerical weather predictions and other data for its Member and Co-operating States and the broader community. ECMWF carries out scientific and technical research to improve its forecasts, runs one of the largest supercomputer facilities in Europe and manages a long-term archive of meteorological data.

For details, see **www.ecmwf.int/**.

2. Summary of the role

ECMWF is looking to establish an "Innovation Platform" aiming to foster a systematic change in the way the organisation embraces and increases the pace of innovation. This will be achieved by supporting and complementing the existing expertise across ECMWF, by offering an environment to facilitate collaborations and knowledge sharing and by providing the necessary infrastructure to experiment with new ideas.

In this context, ECMWF is looking for a Scientific Python Developer/Engineer to help design and implement new facilities to establish the Innovation Platform.

The successful candidate will work with various teams across the organisation to initially setup a JupyterHub service that will provide internal users with a complete stack of Python scientific libraries, as well as efficient access to ECMWF data holdings that includes a data archive with more than 260 petabytes of primary data. This service will be used to explore data analytics and machine learning algorithms to analyse ECMWF data.

3. Main duties and key responsibilities:

- Deploying and maintaining a JupyterHub installation that will be used by researchers from ECMWF and its Member States and Cooperating States, supporting all the standard Python scientific libraries, and providing access to ECMWF's data
- Supporting researchers when they are starting to use the platform and introduce the software framework and guidance on tools and methods that can be exploited
- Assembling a list of reference datasets in support of Machine Learning activities and acting as a custodian for these datasets
- Providing and maintaining all necessary documentation to ensure an efficient use of this facility
- Assisting in other activities related to the Innovation Platform

4. Personal attributes

- Excellent communication skills and interpersonal skills
- Excellent analytical and problem-solving skills, and a proactive approach
- Positive attitude towards working in an international environment
- Flexibility, with the ability to adapt to changing priorities and user needs
- Dedication and enthusiasm to work independently and as part of a small team
- Eagerness to work in a collaborative environment for shared ownership
- Positive creative attitude and interest in innovation

5. Qualifications and experience required

Education	A university degree, or equivalent experience, in computer science or a related discipline.
Experience	Very good programming experience in Python for the development of scientific applications, in particular knowledge of the NumPy, Pandas, Matplotlib and SciPy libraries. Experience with using Python for data analytics, in particular packages such as XArray and Dask, as well as map plotting packages, would also be advantageous. Experience with using and publishing Jupyter Notebooks. Experience with Docker/Kubernetes and Cloud computing, as well as using Machine Learning software such as TensorFlow, PyTorch or SciKit-learn would be a distinct advantage.
Knowledge and skills (including language)	General knowledge about data analytics and machine learning concepts. Good knowledge of code versioning is essential. Candidates must be able to work effectively in English and interviews will be conducted in English. A good knowledge of one of the Centre's other working languages (French or German) would be an advantage.

6. Other information

Grade remuneration

The successful candidate will be recruited at the **A2** grade, according to the scales of the Co-ordinated Organisations and the annual basic salary will be **£60,590.64** net of tax. This position is assigned to the employment category **STF-C** as defined in the Staff Regulations.

Full details of salary scales and allowances are available on the ECMWF website at **www.ecmwf.int/en/about/jobs**, including the Centre's Staff Regulations regarding the terms and conditions of employment.

Starting date: As soon as possible.

Length of contract: Four years, with the possibility of a further contract.

Location: The position will be based in the Reading area, in Berkshire, United Kingdom. Successful applicants and members of their family forming part of their households will be exempt from immigration restrictions.

7. How to apply

Please complete the online application form available at: **www.ecmwf.int/en/about/jobs**.

To contact the ECMWF Recruitment Team, please email jobs@ecmwf.int.

Please refer to the ECMWF Privacy Statement. For details of how we will handle your personal data for this purpose, see: https://www.ecmwf.int/en/privacy.

At ECMWF, we consider an inclusive environment as key for our success. We are dedicated to ensuring a workplace that embraces diversity and provides equal opportunities for all, without distinction as to race, gender, age, marital status, social status, disability, sexual orientation, religion, personality, ethnicity and culture. We value the benefits derived from a diverse workforce and are committed to having staff that reflect the diversity of the countries that are part of our community, in an environment that nurtures equality and inclusion.

Staff are usually recruited from among nationals of the following Member States and Co-operating States:

Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland France, Hungary, Germany, Greece, Iceland, Ireland, Israel, Italy, Latvia, Lithuania, Luxembourg, Montenegro, Morocco, the Netherlands, North Macedonia, Norway, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Staff from non-ECMWF States may be considered in exceptional cases.