Data Scientist

Unit: Public Health Functions
Reference: ECDC/FGIV/2023/PHF-DA

Applications are invited for the above Contract Agent post at the European Centre for Disease Prevention and Control (ECDC).

Job description

ECDC plans to recruit three data scientists (two long term posts and one project post). The jobholders will report either to the Group Leader Surveillance Outputs or the Group Leader Epidemic Intelligence and work in close collaboration with surveillance and disease specialists, data managers, informaticians, statisticians, and mathematical modellers, to understand business strategies and contribute through effective data-driven solutions.

Two of the chosen candidates will focus on surveillance data and will be responsible in particular for the following areas of work:

- Identifying, and connecting external data sources relevant for infectious disease surveillance and control (e.g., disease determinants, contextual data, population vulnerabilities, disease occurrence and outcome, etc.);

- Designing and running statistical analyses to identify patterns, trends and associations;

- Design and implement relevant outputs in the form of interactive reports and dashboards, targeted to specific audiences as needed.

- Supporting the development of data-driven pipelines, tools and systems for data analysis and visualisation;

- Implementing new standards, procedures and protocols for data analysis and interpretation;

- Any other tasks related to his/her area of work as requested.

One of the chosen candidates will focus on tasks related to the EU Early Warning and Response System (EWRS) project, including:

- Supporting ECDC's activities and the collaboration with the European Commission for the development of a data model for the EWRS, interoperable with other ECDC databases, as well as the management and analysis of EWRS data;

- Contribute to further development of the EWRS database, in particular developing data linkages with other alert and epidemiological systems such as EpiPulse;

- Investigate the potential use of artificial intelligence tools and other new technologies for enhancing platforms such as EWRS and EpiPulse;

- Develop analyses on EpiPulse and other ECDC datasets relating to communicable disease threats and automated pipelines to facilitate the inclusion of outputs from these analyses in EpiPulse and/or EWRS;

- Support related activities of threat detection, emergency preparedness and response to detect, assess, prepare for and respond to serious cross-border health threats related to communicable diseases;

- Contribute to the linkage of EpiPulse with other threat detection tools, such as the Epidemic Intelligence from Open Sources tool developed by the World Health Organization.

Qualifications and experiences required

A. Formal requirements

In order to be an eligible candidate you need to fulfil a set of formal requirements. These requirements are:

- A level of education which corresponds to completed university studies of at least three years attested by a diploma [1];

- Thorough knowledge of one of the official EU languages and a satisfactory knowledge of another official EU language to the extent necessary for the performance of his/her duties[2];

- Nationality of one of the EU Member States or of Norway, Iceland or Liechtenstein;

- To be entitled to his or her full rights as a citizen[3];

- To have fulfilled any obligations imposed by the applicable laws on military service;

- Meet the character requirements for the duties involved; and

- Be physically fit to perform the duties linked to the post.

B. Selection criteria

To qualify for this post we have identified **essential criteria** with regard to professional experience/knowledge and personal characteristics/interpersonal skills.

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1 Only diplomas and certificates that have been awarded in EU member states or that are the subject of equivalence certificates issued by authorities in the said Member states shall be taken into consideration.

2 Candidates with a non-official EU language or English as their mother tongue must provide proof of their level of a second language with a certificate (B1 or more).

3 Prior to the appointment, the successful candidate will be asked to provide a certificate from the police file to the effect of non-existing criminal record.

Professional experience/knowledge:

- At least 3 years, following the award of the diploma, of professional experience acquired in positions relevant to the job description;

- Academic degree in a quantitative field, e.g., science, technology, engineering, mathematics (STEM), or equivalent degree;

- Experience in projects involving linking large datasets, including data extraction from SQL databases (SQL server or PostgreSQL) and APIs, data wrangling, cleaning and analysis using scripting languages such as R or Python;

- Knowledge of version control systems such as GIT or SVN;

- Experience in designing pdf/html reports using common R/Python libraries, including visualisations;

- Experience designing, implementing and maintaining dashboards for data visualisation and storytelling;

- Experience with automated systems, with special emphasis in data pipelines, monitoring and quality standards;

- Experience with machine learning/artificial intelligence;

- Excellent level of English, both written and spoken.

Personal characteristics/interpersonal skills:

- Quality driven and service minded;

- Results oriented;

- Analytical skills and innovative thinking;

- Very good oral and written communication skills;

- Ability to work collaboratively and build strong working relationships.

Depending on the number of applications received, the selection committee may apply stricter requirements within the aforementioned selection criteria.

Equal Opportunities

ECDC is an equal opportunities employer and encourages applications from all candidates who fulfil the eligibility and selection criteria without any distinction on grounds of age, race, political, philosophical or religious conviction, gender or sexual orientation and regardless of disabilities.

Women are currently under-represented in this business area. Therefore, women are encouraged to apply.

Appointment and conditions of employment

The jobholder will be appointed on the basis of a shortlist proposed by the Selection Committee to the Director. This vacancy notice is the basis for the establishment of the Selection Committee's proposal. Candidates will be requested to undergo written tests. Candidates should note that the proposal may be made public and that inclusion in the shortlist does not guarantee recruitment. The shortlist of candidates will be established following an open selection process.

The successful candidates will be recruited as a contract agent, pursuant to article 3a) of the Conditions of Employment of Other Servants of the European Union. Long term positions are for a period of five years and the contracts may be renewed. Project positions are for a limited period of 5 years, with a contract that maybe renewed depending on project funding. The appointments will be in **Function Group IV.**

Applicants should note the requirement under the EU staff regulations for all new staff to successfully complete a probationary period of nine months.

For any further information on contractual and working conditions, please refer to the Conditions of Employment of Other Servants of the European Communities, which are available at the following link:

https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A01962R0031-20140501

The place of employment will be Stockholm, where the Centre has its activities.

Reserve list

A reserve list may be created and used for recruitment, should similar vacancies arise. It will be valid until 31 December of the same year as the application deadline and may be extended.

Application procedure

To apply for this vacancy, please create/ log in to your account via ECDC's e-recruitment system, complete all required sections of the application and submit it. **ECDC does not accept applications submitted by e-mail, mail or any other means.**

The closing date for the submission of applications is on **09 January 2024 at 11:59:59 (midday) Stockholm time**. You are advised to submit your application well ahead of the deadline in case you face technical issues and/or if there is heavy traffic on the website. ECDC will not accept any applications after the deadline. Once you have submitted your application, you will receive an automatic e-mail message confirming receipt of your application. Please ensure that the email address you provide for your applicant account is correct and that you check your email regularly.

You can find an e-recruitment user guide and a guide on the ECDC recruitment and selection process on our website:

https://ecdc.europa.eu/en/about-us/work-us/recruitment-process

Due to the large volume of applications received, only candidates selected for interviews will be notified.

You can find the translation[4] of this vacancy notice in all EU languages here:

https://www.ecdc.europa.eu/en/about-ecdc/work-ecdc/recruitment/vacancies/vacancy-translations

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4 While this vacancy notice has been translated into all official EU languages from its English original the language of day-to-day operations in the Agency is generally English. ECDC therefore prefers to receive the application in English.