Seville, 19 April 2022

Data Science and Artificial Intelligence Assistant 1 (DSAIA-1)

Vacancy – Terms of reference

A. Job description

JOB TITLE: Data Science and Artificial Intelligence Assistant-1 (DSAIA-1)

PURPOSE: The DSAIA-1 will assist both PIs of the SmartEcoMountains LifeWatch ERIC-funded project (Thematic Centre on Mountain Ecosystem and Remote Sensing, Deep Learning-AI e-Services University of Granada-Sierra Nevada) at the University of Granada, and the CTO –ICT Core Director–, in the strategy and the day-to-day implementation of the Deep –Machine Learning and AI algorithms and methods as required

LOCATION: University of Granada (Andalusia, Spain)

POSITION: Full-time

FUNDING RESOURCES: ERDF Andalusia Projects – SMART ECOMOUNTAINS (Ref. LifeWatch-2019-10-UGR-01) Operational Framework 2014-2020 POPE

COMPENSATION: Competitive salary, commensurate to degrees and relevant experience

B. Main responsibilities

- S/he will directly report to the PI of the SmartEcoMountains (Work Package 7) at University of Granada, as well as to the Chief Technology Officer/Director of the ICT-Core;

- S/he will hold a position which requires multi-, inter- and trans-disciplinary ICT skills accrediting proven research experience on artificial intelligence and deep learning techniques;
- S/he will assist in applying artificial intelligence algorithms and methods to the automatic identification of land uses in horizontal photography: i.e., review and application of the state-of-the-art in machine learning and end-to-end skills to build intelligent systems (data collection, data preprocessing, iterative development of deep learning models, etc.);
- In particular, s/he shall provide support with a comprehensive knowledge of computer vision problems such as object detection and image classification. i.e., downloading, pre-processing and post-processing of horizontal photography, specifically applied on land use and land covers, including their data annotation;
- In addition, s/he shall provide support with a comprehensive knowledge of artificial intelligence solutions implementation plans at both hardware and software levels, in particular for imagery data analysis. This also implies experience in the data quality enhancement and the iterative process of creation and validation of an artificial intelligence systems based on this high-quality data.

C. The ideal candidate should meet the following requirements:

1. A bachelor's degree in Computer Science Engineering;
2. Be a PhD holder or carrying out such a degree in computer science or related field;
3. Minimum 9 months experience in similar position in a research entity (artificial intelligence expert);
4. Accredited experience in deep learning application for imagery classification justified with Q1 journal publications, conference communications and book chapters in the field;
5. Accredited experience on high quality imagery datasets creation for artificial intelligence usage;

6. Accredited experience in state-of-the-art analysis and comprehensive surveys elaboration in regard with an artificial intelligence application field;
7. Accredited experience as software development engineer;
8. Accredited experience in the high-performance computing field;
9. Accredited professional experience working for private/public bodies and companies, relevant to scientific/technological/innovation activities related to artificial intelligence research;
10. Good presentation and reporting skills, fluency in written and spoken English;
11. Experience in data pre- and post-processing techniques for high-quality deep learning models;
12. Ability to work under tight deadlines with changing priorities;
13. Availability to travel abroad;
14. A high-standard work ethic.

ADDITIONAL DESIRABLE SKILLS

- Proven professional experience in Python, JavaScript, R and Java programming;
- Proven professional experience on Tensorflow and Keras frameworks;
- Knowledge in other programming languages like (C/C++/ C #, Matlab, etc.); proven professional experience on databases administration and management (MySQL, NoSQL, PL/SQL, MongoDB, etc.);
- Proven experience in GIS, Google Earth Engine and its Python API for remote sensing images processing and analysis.

D. The vacancy is subject to the following procedure:

- A short covering letter and Curriculum Vitae (EUROPASS format and annexes, 10 pages at the most) shall be submitted to the Chief Technology Officer/ICT-Core Director cto@lifewatch.eu and in CC to ictoffice@lifewatch.eu by **3 May 2022**. Please write **"DSAIA-1 candidature"** in the mail subject;

- The selection process will follow the Employment Policy of LW ERIC;

- S/he will be appointed full-time. A competitive gross salary, based on the qualifications and experience of the candidate, will be offered. Employment will be in Spain, follow Spanish employment law and be subject to a 180-day trial (probation) period;

- This position is a full-time job. Her/his main office will be located at the University of Granada (Spain) with short stays at the LifeWatch ERIC ICT-Core premises in Seville (Spain), without prejudice to the establishment of others in the future;

- Start date in office for the appointed individual: **May 2022**.

LifeWatch ERIC is an equal opportunity employer, and encourages all qualified candidates to apply, regardless of race, gender, age, national origin, or sexual orientation.