Software engineer for development and operations in DQM-DC for the PPD project of the CMS Experiment

The usual requirements and conditions for Cat-A position are:
- 100% presence at CERN required
- affiliation to a CMS institute required (PJAS contract possible)
- contract of 1 year, extendable by +1 year upon mutual agreement of all involved parties.

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You can find the position also at (only visible with cern account):
https://twiki.cern.ch/twiki/bin/view/CMS/PPDJobs

Introduction:
The PPD project in CMS Experiment is responsible for the preparation of the datasets and of the simulated events needed for the scientific production by the CMS collaboration. Within PPD, the raw data quality monitoring and and the certification of processed events (online, at the experiment, and offline, after final reconstruction of the data) are responsibility of the DQM-DC group; dedicated technologies and procedures are in place to ensure that the data collected by the CMS detector is of high quality, and that the outcome of the event processing is of optimal performance to carry out physics analyses.

Job description:
We are looking for a candidate, whose major responsibility will be maintaining and operating the online & offline software infrastructure of the DQM-DC group. That will entail ensuring that the programs processing data quasi-online are working reliably and robustly and that the plots they produce are accessible, at all times during the data taking period before and during Run-3. The role also involves vetting the code changes proposed by DQM experts (from CMS detector and physics group), in the context of their integration in the CMS software framework, and preparatory work for the DQM upgrade during the LHC long shutdown (from 2019). The candidate will work closely with the DQM-DC team, notably the DQM-DC conveners and another software engineer, as well as several L3 conveners, physicists and students who take responsibilities for developments and operations in specific areas and components. They will also be responsible for assisting and integrating developments in machine learning applications to the system that runs in real-time 24/7. They should also be available for on-call expert shifts. The candidate should have administrator level expertise of Linux OS, advanced knowledge of python, and of C++ concurrent programming and of git or similar source code management systems. Development and maintenance of web services is considered a plus. Good interpersonal and communication skills are also important for this job.