XTX Markets – Research Technology Developer

Company Overview

XTX Markets is a leading financial trading company which specialises in electronic market making in equity, FX, fixed income and commodity markets. We trade in large volumes on most of the world's trading venues, exchanges and directly with clients, entirely in an automated fashion, with around a hundred staff members executing many millions of trades each day.

Our company is driven by the work of our quantitative researchers ("quants"), who develop and calibrate our algorithmic models against multi-petabyte datasets on a huge compute cluster that we run inhouse.

XTX is a company that rewards people on merit and excellence, not necessarily on experience, avoids the bureaucracy of large organisations and maintains a flat hierarchy. Work is fast-paced, in abundance, so we ensure decision making is efficient and changes are quickly implemented.

People working at XTX enjoy a culture of trust, innovation and scientific rigour. It's a collaborative and friendly environment where people are highly engaged with their work.

The Job

We are creating a new group to provide software infrastructure for high-performance computing to support the work done by our quantitative researchers. Having robust, scalable code underpinning the performance and reliability of the components described is vital to the success of the firm's research. The type of components to be developed as part of the role are as follows:

- Task scheduling and distribution engine
- Mechanisms for error handling and automated recovery for large batch jobs
- Observability systems for trend and event monitoring

The right candidate will enjoy an opportunity to participate in building a new technology group from near the beginning. They will get to write software that runs on a compute cluster currently containing 12,500 CPUs, 330TB's of memory and 34PB's of usable storage, and which currently pushes around a terabit/sec of peak network throughput. They will enter an environment where improvements can usually be made with great agility, and where the results of those changes are both quickly visible and can make a large impact to the business.

Skills
- Understanding of the operational, maintenance, monitoring and support aspects of a business-critical system
- Implementing software workflows / testing and deployment methodologies, in an extremely agile environment
- Ability to write user-facing code in MATLAB and Python (the languages used by our researchers)
- An understanding of underlying hardware in large-scale systems and how to best use it

- Experience with large-scale batch processing systems; efficient scheduling; and dependency management
- Competency in at least 1 other statically typed language (C++ preferred)

About you:

You will have a history of high academic achievement, with at least an undergraduate degree (upper second class or better, or international equivalent) from a well-regarded tertiary educational establishment in Computer Science or a related technical field. Initially we are looking for two staff members, one with around two years' relevant hands-on software development experience preferably in an HPC environment, and one with around six or above. For the latter role we would also like to see some experience in architecting complex systems.