



Quadrature Capital LLP is a small technology company applying rigorous statistical and mathematical methods to investment management. Founded in 2010 by two Ex-D.E.Shaw Portfolio Managers, we aim to combine great people and technology in a friendly, dynamic and creative environment.

We are looking for exceptionally talented software engineers; graduates / masters / doctorates in computer science or other numerical discipline. Candidates must have worked on multi-thousand line+ coding projects and want to apply their programming skills to quantitative problems. An ability to be practical rather than theoretical and good communication skills are essential, finance experience is not a prerequisite, we look solely for exceptional programming ability i.e. in the top 10% of your peer group. The ideal candidate will have a broad knowledge base, encompassing such fields as time series analysis, stochastic calculus, machine learning, data mining, code optimization, C++, python and CUDA, although by no means limited to these.

Knowledge of the financial sector is not a prerequisite. We are looking for exceptionally capable software engineers with a passion for solving complex problems related to programming and who possess an excellent understanding of data structures and algorithms. We are looking for individuals who demonstrate a genuine passion for computer science outside of their working routine, be it by attending meet ups, dojo's and hackathons, committing code to open source tools and the community via Github, Stackoverflow or Apache Software, or experimenting with the latest technologies regularly to remain at the cutting edge.

The ideal candidate will have experience of some of the following:

- Python
- C++
- Java/C#
- In depth understanding of Data Structures and Algorithms and how to practically apply the knowledge to real world problems
- Concrete examples of projects displaying excellent code optimization and memory management skills
- Functional programming experience – Scala, Clojure, Haskell, F#
- Worked with very large datasets of often noisy data; application of Machine Learning to solve these problems a plus i.e. Bayesian Statistics, Data Mining
- HPC experience; CUDA, OpenGL, FPGA
- Clear and concise problem solving ability
- The ability to communicate ideas effectively to people at all levels



Of course we are not expecting every applicant to have all of these skills, but for candidates to show a natural flair in their areas of expertise and the desire and ability to pick up more very quickly on the job. Most of all we are looking for very bright people who want to collaborate on big problems in a relaxed and welcoming environment where good ideas are valued regardless of where they come from and rewarded accordingly.

The job entails quite a range of potential responsibilities depending on your abilities and the needs of the business. You may be required to:

- Implement trading strategies;
- Build tools and engines that improve our ability to analyse data
- Work on complex computational and data-related problems and implement efficient and innovative solutions
- Proactively develop tools to analyse data, models, and trading, and develop platform enhancements to improve the quality of our execution
- Develop visualisations and other analytics for live and experimental trading
- Improve system component performance by orders of magnitudes by improving the underlying algorithms/ method of processing / identifying systems bottlenecks
- Improve the accuracy of our trading simulator, analyse differences to actual trading, and then work to improve the correlation;
- Design extremely high-performance, highly-reliable and finely-tuned numeric computational programs and implement such models/algorithms in python and C++ language with production quality code
- Monitor our trading system and fix production problems;

To do this effectively, you will need to be curious, intellectually honest, practical, purposeful, committed to high quality computer code and to apply clear judgment and critical thinking, as well as collaborate closely with others in the firm.

Skills and knowledge that are likely to be helpful include low level systems knowledge / working with large data sets / code optimisation / C++ / python / CUDA / good coding style.

You will be joining a small team where your impact will be immediate and tangible and will be working with experienced hedge fund professionals who will teach you the business. We are open to hearing your ideas and encourage you to make suggestions on any area that can be improved.

We also offer an informal dress code, a flexible attitude to working hours, 25 days holiday, and good coffee.

We aim to reward people on their contribution to firm performance including helping others.