

## The Firm

***GSA is an award-winning quantitative investment manager, focussed on short term and high frequency systematic trading across liquid equity, futures and foreign exchange markets globally.***

GSA Capital was formed in 2001 as the Global Statistical Arbitrage group of DB Advisors, a proprietary trading unit of Deutsche Bank. The team spun out of the bank in 2005 to create an independent hedge fund management company.

Today GSA manages a number of absolute return, alternative investment funds, aiming to deliver superior risk-adjusted performance by systematically exploiting a range of market inefficiencies using quantitative techniques and innovative technologies.

## Our Culture

We reward people based on merit and excellence, not necessarily on experience. We avoid the bureaucracy of larger organisations, and keep our management structures flat. Decisions are made efficiently; changes are implemented quickly.

People who work here enjoy a culture of trust, innovation and scientific rigour. We have some really creative, super-smart people here; all of whom would be embarrassed to be described that way.

It's a friendly, open place where people are motivated because they enjoy what they're doing.

## The Role

### ***Programmer*** **CORE Technology – Market Risk Systems**

At GSA research and trading are synonymous. All trading decisions are automated, trades are generated and executed systematically by computerized algorithms that are conceived, carefully developed and rigorously tested by our research groups.

The firm operates a disciplined approach to risk management. Risk monitoring and controls are applied at both portfolio and firm wide levels in addition to measures that are intrinsic to individual trading algorithms. The Quantitative Market Risk Analyst provides a variety of services internally to our research groups, portfolio managers and senior management including the Founder / CEO and COO.

The nature of tasks and responsibilities varies widely encompassing elements of quantitative research / model building and software development in addition to regular production of risk measures and reports. Typical tasks/projects would include but are not limited to:

- Production of various internal reports, e.g. Risk by strategy type, group, asset class, time frame. VaR reports (Component VaR, Incremental VaR...)
- Further improve automation of risk data / report production. Develop interactive (API and GUI based) systems to facilitate ad hoc access to data / reports.
- Research / Improve proprietary cross sectional, regression based equity factor models.
- Research / Improve approach for back testing / simulating risk measures.
- Ongoing enhancement and maintenance of risk databases and analytics.

## Candidate Attributes

We are seeking talented team players with excellent foundations in mathematics and computer science or closely related disciplines who closely fit the following profile:

- Strong academic foundations achieving no less than a high 2:1 or equivalent in undergraduate studies at a leading university. May hold a postgraduate degree or doctorate in your chosen field of study.
- Outstanding aptitude and track record for analytical and practical problem solving in a commercial setting. Your problem solving skills have been applied beyond your field of academic study.
- Commercial. You continually think about how improvements in technology and processes can better achieve key business objectives. You are conscious of short term vs long term solutions and demonstrate good judgement in your chosen approach.
- Enthusiastic about programming. You are not content with only designing systems to solve problems, you want to implement them and take pride in producing high quality code.
- You may not have any experience in finance but you are curious about financial markets and their dynamics.
- You possess enthusiasm to learn and are motivated to further knowledge through investing in self study.
- You are highly self-motivated; colleagues consider you exceptionally motivated, hardworking, proactive, creative, detail oriented and reliable.

## Technical Skills

- Strong understanding of the principles of OOAD, data modelling, database design, data structures and algorithms.
- Deep knowledge of a primary OO language is essential (preferably Java).
- Experience with a second language such as Scala, Python, Perl, Ruby or Groovy is useful. A willingness to consider and potentially apply new technologies if appropriate is key.
- Experience using databases such as SQL Server, Sybase and Oracle.
- Strong basic quantitative foundations, ability to understand numerical algorithms and statistical models.
- A good grasp of basic quantitative finance is desirable, a willingness to learn and invest time in further self-study is essential.
- Familiarity with Risk Management concept such as Value at Risk and Scenario Analysis beneficial.
- Experience with UNIX or Windows operating systems.